



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

217/524-3300

February 20, 2018

CERTIFIED MAIL
7014 2120 0002 3286 4615

Kevin D. Bogard
Refining General Manager, Illinois Refining Division
Deputy Assistant Secretary,
Marathon Petroleum Company LP
400 S. Marathon Avenue
Robinson, Illinois 62454-3400

Re: 0338080002 — Crawford County
Marathon Petroleum Company LP
ILD005476882
Log No. B-56R2
RCRA Administrative Record (24D)
Permit Draft

Dear Mr. Bogard:

Attached is a draft renewed Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management permit for the above-referenced facility and fact sheet. The draft permit is based on the administrative record contained in the Illinois Environmental Protection Agency's (EPA's) files. The contents of the administrative record are described in Title 35 Section 705.144 of the Illinois Administrative Code (35 Ill. Admin. Code 705.144) and includes your renewal permit application dated June 26, 2017 and additional information dated July 26, 2017, August 31, 2017 and November 6, 2017. The subject facility is currently operating under a RCRA permit issued on November 16, 2007 (Log No. B-56R) and last modified on November 10, 2016 (Log Nos. B-56R-M-13; M-14); this permit allows the Marathon Petroleum Company LP (MPC), Robinson, Illinois Refinery (Robinson Refinery) to operate a hazardous Waste Container Storage Area (WCSA), a land treatment unit and a Corrective Action Management Unit (CAMU).

Under the provisions of 35 Ill. Admin. Code 705.141(d), the draft permit and administrative record must be publicly noticed and made available for public review and comment. The public comment period will begin on February 22, 2018 and will close on April 9, 2018. Copies of this draft decision, fact sheet, and renewal permit application are available for review at the Robinson Township Public Library in Robinson, Illinois.

During the comment period, MPC or any interested party may submit comments to the Illinois EPA on the draft RCRA permit. Comments should be sent to the address below:

Ms. Rachel Stewart
Office of Community Relations (#5)
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

It must be noted that a public hearing may need to be held on the draft RCRA permit if a request for one is made and Illinois EPA determines one is necessary during the comment period. The comment period will be extended to thirty (30) days beyond the hearing date if one is held.

Please make sure you submit to the Illinois EPA, in writing, any comments MPC may have on the draft permit on or before April 9, 2018. Once the public comment period ends, Illinois EPA will prepare a written response to all significant comments it receives and provide a copy of the response to all parties that provided comments. Illinois EPA will issue a final RCRA permit after the close of the public comment period unless the Illinois EPA decides to reverse the tentative decision. The appeal process regarding Illinois EPA's final permit decision and associated limitations are addressed in 35 Ill. Admin. Code 705.212.

If you have any questions regarding the groundwater aspects of this permit, please contact Amy Boley at 217/558-4716. If you have any questions regarding corrective action issues, please contact Bill Sinnott at 217/524-3310. All other questions regarding this permit should be referred to Kelly Huser at 217/524-3867.

Sincerely,



Theodore J. Dragovich, P.E., Manager
Permit Section
Division of Land Pollution Control
Bureau of Land

TJD:KDH:0338080002-RCRA-B56R2-Draft.doc

KDH JKH mms ZBM
Attachment: Fact Sheet
Draft RCRA Permit

cc: James Blough, USEPA Region V
Ashley Tingley, Kyle Strobel, Marathon Petroleum Company LP
Sherry Constable, P.E., TRC



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

ALEC MESSINA, DIRECTOR

HAZARDOUS WASTE MANAGEMENT RCRA PERMIT

Illinois EPA 0338080002—Crawford County
USEPA ILD 005476882
Robinson/Marathon Petroleum Co. LP
Permit Log No. B-56R2
RCRA Administrative Record (24D)

Issue Date:
Effective Date:
Expiration Date:

DRAFT

Owner and Operator

Marathon Petroleum Company LP
Attn: Mr. Kevin D. Bogard, General Manager
Illinois Refining Division
400 S. Marathon Avenue
Robinson, Illinois 62454-3400

A Draft Renewal Resource Conservation and Recovery Act (RCRA) Permit is hereby proposed pursuant to the Illinois Environmental Protection Act, and Title 35 parts 702, 703, 705, and 720 through 729 of the Illinois Administrative Code (Ill. Admin. Code) to Marathon Petroleum Company LP (MPC) to maintain and operate a hazardous waste management facility involved in the treatment, storage and disposal of hazardous waste. The MPC facility is located near the southeastern corner of the City of Robinson, Illinois; its address is 400 South Marathon Avenue, Robinson, Illinois.

This draft permit consists of the conditions contained herein (including those in any attachments and appendices) and applicable regulations contained in the Illinois Environmental Protection Act and Title 35 Illinois Administrative Code (Ill. Adm. Code) parts 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (415 ILCS 5/39) grants the Illinois Environmental Protection Agency (EPA) the authority to impose conditions on permits that are issued. The hazardous waste management units (HWMU) covered by this permit include a Waste Container Storage Area (WCSA), a land treatment unit and a Corrective Action Management Unit (CAMU).

The draft permit is issued based on the information submitted in the approved permit application identified in Attachment K of this draft permit. Any inaccuracies found in the information provided in the permit application may be grounds for the termination or modification of this draft permit (see 35 Ill. Admin. Code 702.187 and 702.186) and potential enforcement action (Chapter 415 Illinois Compiled Statutes Section 5/44 [ILCS 5/44(h)]).

If you have any questions regarding the groundwater aspects of this draft permit, please contact Amy Boley at 217/558-4716. If you have any questions regarding corrective action issues, please contact Bill Sinnott at 217/ 524-3310. Any other questions, please contact Kelly Huser of my staff at 217/524-3867.

Sincerely,

DRAFT

Theodore J. Dragovich, P.E., Manager
Permit Section
Division of Land Pollution Control
Bureau of Land

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RCRA PERMIT
MARATHON PETROLEUM COMPANY LP
ROBINSON, ILLINOIS
ILD005476882
ILLINOIS EPA SITE NO. 0338080002

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FACT SHEET
DRAFT RENEWAL RCRA HAZARDOUS WASTE PERMIT
MARATHON PETROLEUM COMPANY LP
ROBINSON, ILLINOIS
ILD005476882
STATE ID #0338080002
LOG NO. B-56R2

This fact sheet has been prepared pursuant to the requirements of Title 35 Section 705.143 of the Illinois Administrative Code (35 Ill. Admin. Code 705.143). The fact sheet is intended to be a brief summary of the principal facts and significant factual, legal, methodological, and policy questions considered in preparing a draft Renewal Resource Conservation and Recovery Act (RCRA) permit. This renewal permit will allow Marathon Petroleum Company LP (MPC) to continue operating and maintaining three RCRA hazardous waste management units (HWMUs) subject to regulation under 35 Ill. Admin. Code 702.120 at its petroleum refinery in Robinson, Illinois (Robinson Refinery). These HWMUs include: (1) the Waste Container Storage Area (WCSA); (2) the East Land Treatment Facility (LTF); and (3) the West LTF Corrective Action Management Unit (CAMU). Per RCRA classification, the HWMUs are regulated under 35 Ill. Admin. Code 724 as containers (Subpart I), land treatment facilities (Subpart M), and correction action management units (Subpart S), respectively. Pursuant to 35 Ill. Admin. Code 705.143(a), this fact sheet is sent to the applicant and to any other person who requests it.

I. INTRODUCTION

The draft renewal permit for MPC contains all of the standard conditions required by 35 Ill. Admin. Code 702, 703, and 724 for the continued management of hazardous waste at the Robinson Refinery; and the applicable conditions of 35 Ill. Admin. Code 724 Subparts I, M and S. The Robinson Refinery is an existing facility that has been operating under its current RCRA Permit issued November 16, 2007 (B-56R) and prior to that since November 4, 1988 (B-56) and prior to that date, under interim status since the effective date of RCRA (November 19, 1980).

II. DESCRIPTION OF FACILITY

A. General

The Robinson Refinery is a complex, high-conversion refinery that processes crude oil into a full range of petroleum products, with special emphasis on low-sulfur fuels for highway use. The Refinery's petroleum products are distributed to wholesale and retail customers throughout the Midwest. This permit, when finalized, will authorize treatment and storage of listed and characteristically hazardous wastes in addition to various nonhazardous wastes in the HWMUs described in Section III.A below.

B. Site Description

MPC is located on a 927-acre site in central Crawford County, near the southeastern corner of the City of Robinson, Illinois. The mailing address for the facility is:

Marathon Petroleum Company LP
Illinois Refining Division
400 S. Marathon Avenue
Robinson, Illinois 62454

III. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

A. Description of Units

a. Waste Container Storage Area

Wastes are stored in containers in this unit prior to off-site treatment and/or disposal. The existing RCRA permit and the draft renewal permit require that inspections be performed to detect leaks and deterioration of containers and containment system caused by corrosion or other factors. Results of all inspections and the activities undertaken to correct deficiencies are documented in the operating record for the facility.

b. East Land Treatment Facility

Many of the Refinery's as-generated non-hazardous wastes are permitted for treatment/disposal at this on-site 20-acre land treatment facility. In addition, hazardous wastes that meet the land disposal restrictions outlined in 35 Ill. Admin. Code 728 may also be treated/disposed of in the East LTF. RCRA regulations require that these wastes be completely degraded, transformed or immobilized in this unit in a manner that is protective of human health and the environment. The draft RCRA renewal permit contains the existing requirements for monitoring of soil and soil-pore liquids below the treatment zone to determine if releases have occurred. Scheduled required inspections include: a) Run-off control systems; b) Run-on control systems; c) Dikes; and d) Run-off collection tanks. Results of all inspections and the activities undertaken to correct deficiencies are documented in the operating record for the facility.

c. West Land Treatment Facility Corrective Action Management Unit

The West LTF CAMU is a 20-acre land treatment facility that once received many of the Refinery's as-generated hazardous and nonhazardous

wastes. This unit now receives wastes generated from the remediation of facility solid waste management units (SWMUs) and areas of concern (AOCs) carried out in accordance with the corrective action provisions of the facility's RCRA permit. RCRA regulations require that these wastes be completely degraded, transformed or immobilized in this unit in a manner that is protective of human health and the environment. The original RCRA permit and the draft renewal permit require monitoring of soil and soil-pore liquids below the treatment zone to determine if releases have occurred. Scheduled required inspections include: a) Run-off control systems; b) Run-on control systems; c) Dikes and d) Run-off collection tanks. Results of all inspections and the activities undertaken to correct deficiencies are documented in the operating record for the facility.

B. Groundwater Monitoring Programs at Hazardous Waste Management Units

MPC's permit requires groundwater monitoring consisting of a Detection Monitoring Program for the East LTF and the West LTF CAMU. The Detection Monitoring Program utilizes a network of eight (8) existing monitoring wells screened in the Merom Sandstone Member of the Mattoon Formation. Six (6) of the wells are located downgradient of the two units, and two (2) of the wells are located upgradient.

C. Standard Permit Conditions

Standard Permit Conditions 1 to 63 are regulatory requirements of 35 Ill. Admin. Code, 702, 703 and 724. These conditions are of a general nature and are applicable to all Hazardous Waste Management facilities regulated pursuant to an Illinois Environmental Protection Agency (EPA) permit. These conditions include the effectiveness of the permit, permit actions, severability, permit expiration, monitoring and retention of records, and compliance schedules.

IV. CORRECTIVE ACTION

In accordance with Section 3004(u) and (v) of RCRA and 35 Ill. Admin. Code 724.201, MPC must institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any SWMU or AOC at Robinson Refinery.

A RCRA permit for this facility was issued jointly by the Illinois EPA and United States Environmental Protection Agency (USEPA) on September 30, 1988; the USEPA portion of that permit contained corrective action requirements. In addition, the renewed RCRA permit issued by Illinois EPA on November 16, 2007 also set forth corrective action

requirements that needed to be met. MPC has completed a substantial amount of investigation and remediation at the facility to date. This draft Renewal Permit identifies the activities that still must be carried out to ensure the requirements of 35 Ill. Admin. Code 724.201 are met at this facility.

V. CONSIDERED PERMIT ACTIONS OTHER THAN RCRA

A. Air

The air emissions from a hazardous waste management facility are regulated under the Clean Air Act (CAA), the Illinois Environmental Protection Act and State regulations at Title 35 Ill. Admin. Code: Environmental Protection, Subtitle B: Air Pollution. Under these regulations, a permit is required to install or operate any process that is, or may be, a source of air pollutants. MPC has proper permits for sources of air emissions from their Waste Water Treatment Units, Refinery Process Units, and Product Storage Tanks.

B. Water

A discharge of any waste waters from a hazardous waste management facility into the waters of the State, is required to have a National Pollutant Discharge Elimination System (NPDES) permit, issued by the Illinois EPA under Section 39 (b) of the Environmental Protection Act. MPC has obtained discharge permits for their activities.

VI. PROCEDURES FOR REACHING A FINAL DECISION

Pursuant to 35 Ill. Admin. Code 705.162 (a) (2), the public is given at least forty-five (45) days to review the renewal permit application and draft permit and provide comments on the draft renewal permit conditions prior to Illinois EPA taking any final permitting action on the renewal permit application. The comment period will begin on February 22, 2018, the date of the first publication of the public notice in the Robinson Daily News, the newspaper of general circulation in the area. The comment period will end on April 9, 2018.

Any interested person may request a public hearing on Illinois EPA's draft renewal permit by contacting the Illinois EPA contact person listed below. The final decision as to whether a public hearing will be held lies with Illinois EPA (the reasons for holding a public hearing are set forth in 35 Ill. Admin. Code 705.182). If a public hearing is held, Illinois EPA is required to give notice to the public at least thirty (30) days prior to the scheduled date of the hearing. If a public hearing is held, the comment period will end thirty (30) days after the date of that hearing.

When the Illinois EPA makes the final permit decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final permit decision. In addition, a response to comments document will be developed and made available to everyone who provided comments on the draft renewal permit. The notice will reference the regulations governing appeals of the final permit decision found at Ill. Admin. Code 705.212. If no appeal is filed, the permit will become effective thirty-five (35) days after service of notice of the decision or at a later date if stated in the permit.

Copies of the renewal permit application, draft permit and this fact sheet will be available for review at:

Robinson Township Public Library
606 North Jefferson
Robinson, IL 62454

Any interested person may submit a request for a public hearing or submit written comments on the Illinois EPA's draft renewal permit to:

Ms. Rachel Stewart, Office of Community Relations
Illinois Environmental Protection Agency
1021 N. Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

The Illinois EPA's complete administrative record for this draft renewal permit is open for public inspection at the Illinois EPA's Springfield office at the above address from 9:00 a.m. to 5:00 p.m., Monday through Friday. The Illinois EPA administrative record contains the renewal permit application, draft renewal permit, fact sheet, and other supporting documents and correspondence submitted to or developed by the Illinois EPA. Contact Ms. Stewart at the address above, or at 217/782-2224, to make an appointment to inspect the Illinois EPA administrative record or for further information concerning this draft renewal permit.

LIST OF ATTACHMENTS

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GENERAL FACILITY DESCRIPTION
MARATHON PETROLEUM COMPANY LP
ILD005476882
Illinois EPA Site No. 0338080002

I. General

The Marathon Petroleum Company LP (MPC) Robinson, Illinois Refinery (Robinson Refinery) stores, treats and disposes hazardous wastes generated at the facility in several storage, treatment and disposal units on the refinery property. Refinery wastes, such as waste biosludge, miscellaneous oily soils, and refinery sludges are treated/disposed on the facility's Land Treatment Facility (LTF). Hazardous wastes that are not land-treatable are transported off-site for treatment and disposal. The Robinson Refinery does not accept hazardous wastes from off-site for storage, treatment or disposal.

The following hazardous waste management units are used for the handling of hazardous and non-hazardous wastes:

- A. A Waste Container Storage Area (WCSA) - Wastes are stored in containers in this unit (a 27' x 41' building with a concrete floor) prior to off-site treatment and/or disposal.
- B. A 20-acre LTF known as the East LTF. Many of the refinery's as-generated nonhazardous wastes are permitted for treatment/disposal at this on-site land treatment facility. In addition, hazardous wastes that meet the land disposal restrictions outlined in Title 35 Section 728 of the Illinois Administrative Code (35 Ill. Admin. Code 728) may be treated/disposed of in the East LTF. Resource Conservation and Recovery Act (RCRA) regulations require that these wastes be completely degraded, transformed or immobilized in this unit in a manner that is protective of human health and the environment. It must be noted that storage, treatment and disposal of the listed hazardous refinery wastes in land disposal facilities were banned in December 1990 by regulations promulgated by the United States Environmental Protection Agency (USEPA). MPC has the option of applying for a site-specific variance to the disposal ban.
- C. A Corrective Action Management Unit (CAMU) that receives wastes generated from the remediation of facility solid waste management units (SWMUs) and Areas of Concern (AOCs). The CAMU, known as the West LTF CAMU, is a 20-acre land treatment facility that once received many of the Refinery's as-generated hazardous and nonhazardous wastes.

II. Site Description

The Robinson Refinery occupies 927 acres near the southeastern corner of the City of Robinson, Illinois.

SECTION I: CONTAINER STORAGE

A. SUMMARY

Containers of hazardous waste are stored in a 27' x 41' building with a concrete floor. This building is completely enclosed and contains three areas that allow for segregation of ignitable wastes, corrosives and other compatible wastes, and other wastes incompatible with ignitable wastes or corrosives. The areas for ignitable wastes and other liquid wastes are curbed and include secondary containment. This building is referenced as the WCSA.

B. WASTE IDENTIFICATION

1. The storage of all hazardous waste in containers shall be located in the container storage area shown in Figure B-2 of the Approved Permit Application.
2. The Permittee may only store wastes listed in Attachment A of this permit in approved containers listed in Condition C.1 below.
3. A maximum of 2,700 gallons of waste (hazardous and nonhazardous) may be stored in the container storage area. Waste types shall be segregated in accordance with Attachment A, Attachment B and as described in the Approved Permit Application.
4. The Permittee is prohibited from storing hazardous wastes in the permitted unit that are not identified in the Condition B.2 above, unless authorized by the Illinois EPA via a permit modification.
5. The Permittee shall not accept hazardous waste from off-site at this facility unless approved by the Illinois EPA via a permit modification.
6. Nonhazardous wastes may be stored in the container storage area if they are known to be compatible (e.g., via process knowledge or testing) prior to their storage and segregated accordingly.
7. Storage of wastes in the container storage area is subject to the storage limitations of 35 Ill. Admin. Code 728.150.

C. DESCRIPTION/CONDITION OF CONTAINERS

1. Wastes shall be collected and stored in new or reconditioned containers that meet the criteria or the specifications contained in Section D.1 and Table D1-1 of the Approved Permit Application: .
2. If a container holding waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the waste from this container to a container that is in good condition or manage the waste in accordance with the Approved Permit Application.
3. Any transfer of waste into a different container must be recorded in the facility's operating record.
4. Packaging of all wastes accepted for storage in the WCSA shall meet the requirements of Title 49, Sections 173, 178, and 179 of the Code of Federal Regulations (49 CFR 173, 178 and 179). All containers must be marked and placarded in accordance with 49 CFR 172.
5. The contents of each container shall be clearly marked on the side of the container.

D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee must use a container made of or lined with material that will not react with, and is otherwise compatible with, the waste to be stored so that the ability of the container to contain the waste is not impaired.

E. INSPECTION

The Permittee shall inspect the container storage area in accordance with the inspection schedule, specified in the Approved Permit Application to detect leaks and deterioration of containers and the containment system caused by corrosion or other factors. Results of all inspections and the activities undertaken to correct deficiencies shall be documented in the operating record for the facility.

1. The floor of the container storage area and its containment system shall be inspected at least weekly for presence of liquid. Containers shall be examined during this inspection for leakage, bulging and deterioration. Action shall be taken expeditiously to transfer any liquid to a recovery drum and to identify and overpack the leaking or deteriorating drum. Appropriate action to clean up any

release of waste from a leaking or deteriorated drum shall be carried out expeditiously after the drum has been overpacked.

2. If a portion of the containment system is found to be in a deteriorated condition, the Permittee shall immediately remove all waste containers from the deteriorated area. No waste may be placed in the deteriorated area until the containment system has been repaired.
3. The container loading/unloading area shall be inspected weekly during use for spills and releases. Once observed, such releases and contaminated soils, structures and equipment shall be immediately cleaned up.

F. CONTAINMENT

The Permittee shall operate and maintain the containment system according to the design plans and operating specifications contained in the Approved Permit Application. The containment system consists of the concrete floor of the WCSA and sumps as shown in Figure D1-1 of the Approved Permit Application.

G. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not locate containers that hold ignitable or reactive waste within 50 feet of the facility's property line.
2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Ignitable or reactive wastes must be separated and protected from sources of ignition or reaction, including but not limited to:
 - a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat.
 - b. While ignitable or reactive waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
 - c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

H. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container unless the procedures specified in the Approved Permit Application are followed.

Incompatible wastes or materials must not be placed in the same container unless precautions are taken to prevent reactions that:

- a. Generate extreme heat or pressure, fire or explosions, or violent reactions;
 - b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
 - c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
 - d. Damage the structural integrity of the device or facility; or
 - e. Through other like means, threaten human health or the environment.
2. The Permittee shall not place waste in an unwashed container that previously held an incompatible waste or material.
 3. If incompatible wastes/materials are placed in the same container, one or both of the incompatible wastes/materials shall be treated to render them compatible prior to placing them in the container.
 4. The Permittee shall not store containers holding a waste that is incompatible with any waste or other materials stored nearby in other containers, unless separated from the other material or protected from them by means of a wall, curb or other separation device.

I. GENERAL OPERATING REQUIREMENTS

The Permittee shall operate the container storage area in accordance with the Approved Permit Application and subject to the following conditions:

1. All hazardous wastes to be received at the container storage area must be identified in Condition B.2 above.
2. A container holding waste must always be closed during storage, except when it is necessary to sample or to add or remove waste.

3. A container holding waste must not be opened, handled or stored in a manner that may rupture the container or cause it to leak.
4. All containers containing liquids shall be stored on pallets, elevated pads or grates to protect them from coming into contact with any accumulated liquid in the storage area. Containers with wastes having no free liquids as determined by the Paint Filter Liquids Test (Methods 9095 in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" EPA Publication No. SW-846, latest edition) may be stored directly on the concrete floor. Aisle space of at least two feet shall be maintained between a row of pallets and between a wall and a row of pallets. Drums shall not be stacked more than two high.
5. Liquid that accumulates on the floor of the container storage area or in the containment system shall be removed as soon as possible after it is detected.
6. All hazardous and nonhazardous special wastes generated by this facility that are taken off-site for treatment and/or disposal must comply with the Illinois Special Waste Hauling and Manifest System in accordance with the applicable regulations in 35 Ill. Admin. Codes 709, 722, 723 and 809.
7. The Permittee shall obtain an authorization from the Illinois EPA under the provisions of Section 39(h) of the Illinois Environmental Protection Act for hazardous wastes that are to be deposited in a permitted hazardous waste site (including interim status disposal units) within the State of Illinois. This authorization cannot be granted unless the generator demonstrates that, considering technological feasibility and economic reasonableness, the hazardous waste cannot be reasonably recycled for reuse, nor incinerated or chemically, physically or biologically treated so as to neutralize the hazardous waste and render it nonhazardous. The possession of an approved and active RCRA Permit will suffice for compliance with the provisions of Section 39(h) of the Illinois Environmental Protection Act.
8. Waste shall not be accumulated (stored) in the outdoor loading/unloading area for longer than 24 hours.

J. CLOSURE

At closure, all waste and waste residues must be removed from the containment system. Remaining containers, liners, bases and soil containing or contaminated with waste or waste residue must be decontaminated or removed. Closure of the container storage area shall be carried out in accordance with the closure plan in the Approved Permit Application, as modified below:

1. The Permittee shall notify the Illinois EPA in writing of its intent to close the container storage area at least forty-five (45) days prior to the date closure is expected to begin. If any releases are detected during closure activities, the Permittee shall submit the sampling and analysis plan to be used in demonstrating that the storage area, including the ancillary loading/unloading area, has been properly decontaminated. This plan shall be approved by the Illinois EPA in writing prior to being implemented. Illinois EPA review of this plan will be subject to the permit review and appeal provisions contained in Sections 39(a), 40(a) and 41(a) of the Environmental Protection Act. The response from the Illinois EPA shall approve and establish:
 - a. The sampling plan;
 - b. What contaminants must be analyzed for; and
 - c. The level at which decontamination is considered complete.
2. Sweepings and other solid residuals collected during closure of the container storage area shall be managed as a hazardous waste unless they are shown to be exempt under the provisions of 35 Ill. Admin. Code 721.103(a)(2)(C) or 721.103(d). All washwater and rinsate generated during the closure of this unit shall also be managed as a hazardous waste unless it is exempt under the provisions listed above.
3. The Permittee shall provide post-closure care in accordance with 35 Ill. Admin. Code, 724, for the container storage area if all of the hazardous wastes, waste residues or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the permit and in the Approved Closure Plan. If it is determined that the container storage area cannot be fully decontaminated and that post-closure care for the container storage area is therefore required, this permit will be modified to require post-closure care for the container storage area in accordance with 35 Ill. Admin. Code, 724, Subparts G and H.
4. Should post-closure care as described in Condition J.3 above, become necessary the Permittee shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit, within thirty (30) days following discovery that "clean closure" cannot be accomplished. If a determination is made that "clean closure" will not be performed prior to the implementation of the closure plan, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure care of the container storage area, if required in accordance with Condition J.3 and J.4 above, shall be provided within thirty (30) days following modification of the permit under the provisions of Condition J.4 above.
6. Within sixty (60) days after closure of the container storage area is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the Approved Closure Plan.

The closure certification form in Attachment D-1 to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Admin. Code, 702.126. The independent engineer or an engineer working under his direct supervision should be present during all major activities during the closure, (e.g., soil sampling, soil removal, backfilling and final cover placement). The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each major activity. Financial assurance must be maintained for the container storage area until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certifications for partial or final closure will be conducted in accordance with 35 Ill. Admin. Code 724.215.

A Closure Documentation Report is to be submitted with the closure certification that includes the following items, if applicable:

- a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;
- b. A description of the method of waste handling and transport;
- c. Copies of the waste manifests;
- d. A description of the sampling and analytical methods used;
- e. A chronological summary of closure activities and the cost involved;
- f. Tests performed, methods and results; and
- g. Color photographs of closure activities that document conditions before, during and after closure.

K. HAZARDOUS WASTE LABPACKING

1. General Requirements

- a. For the purposes of this permit, a labpack is defined as an outer container into which several smaller containers of hazardous waste are placed for storage or transportation requirements.
- b. The Permittee may only receive or prepare labpacks at the container storage (S01) area that are or will be (if preparing) packaged in accordance with the Department of Transportation (DOT) requirements for labpacks (49 CFR 173.12) and the additional requirements listed below.
- c. The Permittee is allowed to labpack hazardous wastes identified in Condition K.1.b above and non-hazardous wastes and materials in the same container, provided that the non-hazardous wastes and materials are compatible with the hazardous wastes. A determination as to the compatibility of the materials to be labpacked must be made prior to labpacking and must be documented in the facility operating record. The packing slip accompanying each container of labpacked waste must identify the chemical name of the non-hazardous waste or material and the quantity labpacked.

2. Packaging Requirements

All labpacks either received or created as a result of consolidation/repackaging efforts must meet the following requirements:

- a. Packing must be conducted in accordance with the DOT requirements of 49 CFR 173.12, and the additional requirements listed in K.2.b through K.2.g below.
- b. All wastes and packing material labpacked into one container must be determined to be compatible in accordance with Attachment B of this permit.
- c. Each labpack must contain a sufficient amount of absorbent material to adsorb any free liquids released from the inner containers. This absorbent material must also provide proper "bedding" to fill all voids in the labpack container and to protect the small containers from being broken. Additionally, absorbent must be added such that (1) all inner containers

are covered and (2) the outer container is full in order to minimize the potential for inner containers to rupture or break.

- d. No gas cylinders may be placed in a labpack.
- e. Each container of hazardous waste placed into a labpack must have a label affixed to it that, at a minimum, clearly identifies the following:
 - 1) the commercial chemical name of the waste;
 - 2) the volume of the waste in the container;
 - 3) the appropriate EPA Hazardous Waste Code(s);
 - 4) the DOT hazard classification;
- f. No container that is improperly marked may be placed into a labpack.
- g. The final labpack container must be marked in accordance with the requirements of 35 Ill. Admin. Code 722. A packing list must be developed and accompany the labpack that contains, at a minimum, the following information regarding each container of waste in the labpack;
 - 1) the chemical name(s) of the waste in each container;
 - 2) the volume of waste in each container;
 - 3) the EPA Hazardous Waste Code(s) of the waste in each container;

3. Operational Requirements

a. Precautions During Labpacking Activities

- 1) Labpacking containers must be kept closed at all times unless labpacking is actively being conducted.
- 2) Any area where labpacking procedures are conducted must have adequate ventilation in accordance with the requirements of 29 CFR 1910.1000.
- 3) Prior to conducting labpacking activities, the Hazardous Waste Coordinator shall determine whether labpacking activities should be conducted under an operating fume hood. This determination shall be

based on a review of the characteristics and chemical and physical properties of the wastes to be labpacked.

- 4) Prior to labpack inspection or consolidation, the level of personnel protective equipment (PPE) shall be determined based upon a review of the materials within, or to be consolidated into, a labpack by the Hazardous Waste Coordinator.
- 5) The Hazardous Waste Coordinator must oversee labpacking activities.

b. Storage Requirements

- 1) All labpacks must be stored in rooms in which the contents of each container within the labpack is compatible with all other wastes in the storage room, or segregated by incompatible wastes by some type of physical barrier that would restrict commingling of the wastes, such as a firewall, dike, etc. This evaluation must be carried out in accordance with Attachment B to this permit. Documentation that such a determination was made must be kept and maintained in the facility operating record.
- 2) Labpacks containers must be closed at all times unless labpacking is actively being conducted.
- 3) All labpack containers containing liquids must be stored in an area that meets the secondary containment requirements of 35 Ill. Admin. Code 724.275, unless labpacking is actively being conducted.
- 4) Labpacks containing air or water reactive wastes:
 - a) are prohibited from being stored in the same room as ignitable wastes;
 - b) must be stored in a room that has a fire suppression/fire control system at adequate pressures and volumes capable of managing a hazardous waste emergency involving air or water reactive wastes;
 - c) must be stored in a room that has a system that has fire suppression/fire control materials compatible with all reactive wastes stored;
 - d) are prohibited from being labpacked with any wastes other than hazardous wastes that are listed or determined to be characteristic

due to their air or water reactive properties. Additionally all reactive wastes labpacked within the same container must have the same compatibility classification in accordance with Attachment B;

- e) must contain packing material (i.e., absorbent) that are non-organic, non-flammable and non-combustible;
- f) shall not be opened for the purposes of re-consolidation;
- g) must be conspicuously marked with a label that indicates that the waste material contained inside is reactive with air or water; and
- h) must be inspected weekly for (1) container condition, (2) container integrity, and (3) odors, visual or audible indications that wastes within the containers have been released, or are incompatible. Should the inspection indicate that the wastes within the labpack have been released and/or are incompatible, the Permittee shall implement the facility contingency plan to address this event.

c. Documentation Requirements

- 1) Copies of all manifests and packing slips from all hazardous waste labpacks received at this storage unit must be cross-referenced, kept and maintained in the facility operating record.
- 2) Copies of all manifests and packing slips from all hazardous waste labpacks consolidated and stored at the storage unit, and/or shipped off-site for storage, treatment or disposal must be cross-referenced, kept and maintained within the facility operating record.

L. AIR EMISSION STANDARDS FOR CONTAINERS

Level 1 and/or Level 2 containers

- 1. Whenever hazardous waste is in a container subject to controls required by 35 Ill. Admin. Code 724, Subpart CC, the Permittee shall install all covers and closure devices for the container and secure and maintain each closure device in closed position except:
 - a. Opening of a closure device or cover for a container is allowed for the purposes of adding/removing hazardous waste or material as follows:

- 1) In the case where the container is filled to the intended final level in one continuous operation, the Permittee shall promptly secure the closure devices in the closed position and install the covers upon conclusion of the filling operation.
 - 2) In the case where discrete quantities or batches of material intermittently are added to the container over a period of time, the Permittee shall promptly secure the closure devices in the closed position and install covers upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
 - 3) An empty container, as defined in 35 Ill. Admin. Code 721.107(b), may be open to the atmosphere at any time.
 - 4) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Admin. Code 721.107(b), the Permittee shall promptly secure the closure devices in the closed position and install covers upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
- b. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste.
 - c. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications.
 - d. Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition.
2. The Permittee shall inspect the containers and their covers and closure devices as follows:

- a. In the case when a hazardous waste already is in the container at the time the Permittee first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, the Permittee shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility.
- b. In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the Permittee shall visually inspect the container and its cover and closure device initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The Permittee must also comply with the storage limitations of 35 Ill. Adm. Code 728.150(b)–728.150(c).
- c. When a defect is detected for the container, cover, or closure devices, the Permittee shall make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five (5) calendar days after detection. If repair cannot be completed within five (5) calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

SECTION II: LAND TREATMENT — EAST LTF

A. SUMMARY

The operation of the East LTF will be in accordance with the requirements listed below in this section of the permit. The East LTF is a 20-acre unit with four cells (5, 6, 7 and 8) available for land treatment and disposal of wastes identified in Section B below.

If USEPA promulgates regulations that ban the land disposal of listed hazardous refinery wastes, the authorizations contained in this section of the permit will be subject to these regulations. Land treatment of the wastes that are prohibited by any land disposal ban promulgated under the authority of the Hazardous and Solid Waste Amendments of 1984 (HSWA) will be banned on the effective date of the applicable regulations, regardless of the permit status of the unit. The Permittee will retain any rights granted under these regulations to apply for an extension or waiver.

B. WASTE IDENTIFICATION

1. The following on-site as-generated non-hazardous wastes are permitted for treatment and disposal in the East LTF:

Cooling Tower Sludge	Remediation Derived Wastes (RDW)
Heater Stack Solids	Construction Derived Waste (CDW)
HF Alky Sludge	BEU Filter Clay, Spent
Investigation Derived Waste (IDW)	Sewer Sludges (Stormwater)
Kerosene Filter Clay	Caustic, Spent
Soils or Debris, Misc. Contaminated	Caustic Sludge, Spent
Oily Sludges, Misc.	Tank Bottoms, Unleaded
Monoethanol Amine (MEA)	Waste Biosludge
Monodiethanol Amine (MDEA)	

2. In addition to the above wastes, the Permittee generates the following hazardous wastes on-site that are presently banned from disposal/treatment in the East LTF unless one or more of the requirements listed in Condition B.3 below is met.:

Hazardous Waste Name	Hazardous Waste No.
API Separator Sludge	K051
Heat Exchanger Bundle Cleaning Sludge	K050

Hazardous Waste Name	Hazardous Waste No.
Heater Stack Solids	D002, D004, D006, D007, D008, D010
HF Alky Sludge	D002
Investigation Derived Waste (IDW)	Varies
Remediation Derived Wastes (RDW)	Varies
Construction Derived Wastes (CDW)	Varies
Kerosene Filter Clay	D018
BEU Filter Clay, Spent	D018
Soils or Debris, Misc. Contaminated	Varies
Oily Sludges, Misc.	D018
Primary Sewer Solids – Processed and Unprocessed	F037
Secondary Sewer Solids	F038
Slop Oil Emulsion Solids	K049
Sewer Sludges (Stormwater)	D018
Clarified Slurry Oil Storage Tank Sediment and/or In-Line Filter/Separation Solids	K170
Tank Bottoms, Unleaded	D018
Caustic, Spent	D002
Caustic Sludge, Spent	D002

3. Land Treatment of characteristic and listed hazardous wastes is prohibited by the land disposal restrictions (LDRs), 35 Ill. Admin. Code 728, unless LDR requirements for land application are met or do not apply. Specifically, the hazardous wastes listed in Condition B.2 above are prohibited from land disposal at the East LTF unless one or more of the following conditions are met:
 - a. Listed wastes are treated to meet their universal treatment standards (UTSs) for the constituents and their accompanying standards listed in Table T of 35 Ill. Admin. Code 728 per 35 Ill. Admin. Code 728.140.
 - b. Characteristic hazardous wastes are treated per 35 Ill. Admin. Code 728.140 to remove their characteristics and to treat all underlying hazardous constituents (UHCs) to their UTSs.
 - c. The wastes are delisted per 35 Ill. Admin. Code 720.122.
 - d. The Refinery obtains a case-by-case exemption for disposal of the wastes per 35 Ill. Admin. Code 728.105.

- e. The Refinery obtains a No Migration Petition for the East LTF per 35 Ill. Admin. Code 728.106.
- 4. The Permittee is prohibited from treating wastes that are not included in Conditions B.1 and B.2 above without authorization from the Illinois EPA via a permit modification.
- 5. The hazardous constituents of the wastes identified in Conditions B.1 and B.2 above shall be determined from the hazardous constituent list in Attachment H to this Permit.

C. DESIGN AND OPERATING REQUIREMENTS — East LTF

- 1. The Permittee shall construct, operate and maintain the treatment unit in accordance with plans and specifications contained in the Approved Permit Application.
- 2. The Permittee shall construct, operate and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit in accordance with the plans and specifications contained in the Approved Permit Application.
- 3. The Permittee shall construct, operate and maintain the run-on control system in accordance with the plans and specifications contained in the Approved Permit Application. This system must be capable of preventing run-on from at least a 24-hour, 25-year storm.
- 4. The Permittee shall construct, operate and maintain a run-off management system in accordance with the plans and specifications contained in the Approved Permit Application. This system must be able to collect and control at least the water volume resulting from a 24-hour, 25-year storm.
- 5. The Permittee shall manage the run-on and run-off collection and holding facilities to maintain the design capacity of the systems in accordance with the design plans and operating practices specified in the Approved Permit Application. The holding systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system. Run-off shall be treated and discharged under the provisions of the facility's National Pollutant Discharge Elimination System (NPDES) permit or returned to the LTF for moisture control.

6. The Permittee shall inspect the land treatment unit weekly, after storms (two inches or more of precipitation within a 24-hour period), and in accordance with the inspection schedule in the Approved Permit Application to this permit to detect evidence of:
 - a. Deterioration, malfunction or improper operation of the run-on and run-off control systems;
 - b. Improper functioning of wind dispersal control measures; and
 - c. To determine if moisture control measures are necessary.
 - 1) If excessive soil moisture is present in the treatment zone, the land treatment area shall be tilled as soon as practicable to facilitate drying.
 - 2) The land treatment area shall be wetted or otherwise managed in accordance with the Approved Permit Application, to prevent wind dispersal and facilitate degradation of hazardous constituents. The application of waste to increase soil moisture content will be considered adequate to meet this requirement, provided that the application will not exceed the allowable loading rate specified in condition C.8 below.
7. Waste application shall be restricted in accordance with the following conditions:
 - 1) Waste shall not be applied to the land treatment area when the soil is either frozen or saturated, or soon after a heavy application of waste in the same area; and
 - 2) Waste shall be uniformly applied to the land treatment unit with agricultural equipment, dump trucks, and other heavy equipment as necessary. Applied wastes will be incorporated into the soil as quickly as possible, in accordance with the Approved Permit Application.
8. Waste application rates shall be in accordance with the loading rates determined during the Land Treatment Demonstration. For the East LTF, a total of 500 barrels of oil/acre/year during operation, subject to the following conditions:
 - 1) the maximum total oil and grease loading rate between December 1 and March 31 shall be 150 barrels/acre,
 - 2) the maximum calendar month oil and grease application between December 1 and March 31 shall be 50 barrels/acre, and
 - 3) the maximum weekly and daily oil and grease applications between December 1 and March 31 shall be 25 and 10 barrels/acre, respectively.

9. Decontamination procedures shall be conducted as specified in the Approved Permit Application. All equipment that enters the LTF and that contacts hazardous waste and/or hazardous constituents will be decontaminated at the decontamination pad. Decontamination is defined as the removal of visible waste, waste residues, and contaminated soils on equipment originating from activities conducted at the East LTF.

D. UNSATURATED ZONE MONITORING

1. The Permittee shall monitor the soil and soil-pore liquids immediately below the treatment zone to determine if any hazardous constituents have migrated out of the treatment zone.
2. The Permittee shall implement an unsaturated zone monitoring program in accordance with the plans and specifications contained in the Approved Permit Application.
3. The Permittee shall establish a background and baseline upper tolerance limit (UTL) for each hazardous constituent (referenced in Condition B.3 above) to be monitored in accordance with the Approved Permit Application.
4. The Permittee shall conduct soil core monitoring and soil-pore liquid monitoring immediately below the treatment zone (BTZ) in accordance with the procedures contained in the Approved Permit Application.

The Permittee shall submit to the Illinois EPA a summary of the results of the soil core and soil-pore sampling events associated with the East LTF for each calendar year of active operation by March 15 of the following year. Upon initiation of closure of the East LTF, monitoring will be conducted in accordance with the requirements of the closure and post-closure care plans contained in the Approved Permit Application and Section VI of this Permit.

5. The Permittee shall follow the sampling and analysis procedures according to the plans and procedures contained in the Approved Permit Application.
6. The Permittee shall determine whether there is a statistically significant increase in concentration for any hazardous constituent to be monitored under Condition D.1 each time the monitoring required by Condition D.4 is conducted. This determination shall be made using (1) the statistical procedures contained in the Approved Permit Application and (2) the unsaturated zone monitoring program data assessment decision tree included in the Approved Permit Application as

Figure D.7-7 of Volume 5. The Permittee shall make this determination within thirty (30) days after receipt of lab analysis results.

- a. When making this determination for soil-pore liquids, the Permittee shall conduct the following steps:
 - 1) Initial sample results will be compared to background and baseline UTLs. If none of the constituent results are greater than both applicable UTLs, then the Permittee will continue routine detection monitoring.
 - 2) If any sample results are greater than both applicable UTLs, then the concentration will be confirmed by resampling and a second comparison to the UTLs.
 - 3) If the constituent concentration is confirmed to be greater than both applicable UTLs, the Permittee will notify the Illinois EPA and evaluate whether alternate operating procedures in the Approved Permit Application may be an appropriate corrective action.
 - 4) The Permittee will report the potential migration of any constituent that is significant (i.e., 1) a confirmed detection that is greater than the applicable UTLs and results in a corrective action that is not included in the Approved Permit Application; or 2) a statistically significant detection in groundwater that is determined to be from the unit; or 3) an off-site release that is determined to be from the unit) to the Illinois EPA within fifteen (15) days of the evaluation and will refrain from applying waste to the affected area of the unit. The Permittee will then determine the source of the increased constituent concentration and will submit appropriate permit modifications or an alternate source determination, as required.
- b. When making this determination for soil cores, the Permittee will conduct the following steps:
 - 1) Initial sample results will be compared to background and baseline UTLs. If none of the constituent results are greater than both applicable UTLs, then the Permittee will continue routine detection monitoring.

- 2) If any sample results are greater than both applicable UTLs, then the concentration will be confirmed by resampling and a second comparison to the UTLs.
 - 3) If the constituent concentration is confirmed to be greater than both applicable UTLs, the Permittee will notify the Illinois EPA and evaluate whether alternate operating procedures in the Approved Permit Application may be an appropriate corrective action.
 - 4) The Permittee will report the potential migration of any constituent that is significant (i.e., 1) a confirmed detection that is greater than the applicable UTLs and results in a corrective action that is not included in the Approved Permit Application; or 2) a statistically significant detection in groundwater that is determined to be from the unit; or 3) an off-site release that is determined to be from the unit to the Illinois EPA within fifteen (15) days of the evaluation and will refrain from applying waste to the affected area of the unit. The Permittee will then determine the source of the increased constituent concentration and will submit appropriate permit modifications or an alternate source determination, as required.
7. If the Permittee determines, pursuant to Condition D.6, that there is a statistically significant increase of hazardous constituents below the treatment zone, the Permittee shall notify the Illinois EPA of this within fifteen (15) days of such finding, indicating which constituents have shown statistically significant increases, and apply for a permit modification within ninety (90) days to modify the operating practices at the facility to maximize the success of degradation, transformation or immobilization processes in the treatment zone. Application of waste in the area that influences that lysimeter shall be discontinued immediately and shall not be resumed until approved in writing by the Illinois EPA.
 8. The Permittee need not submit the permit modification required by Condition D.7 if they successfully demonstrate that a source other than the regulated unit caused the increase or that the increase resulted from an error in sampling, analysis or evaluation within the 90-day time period referenced in Condition D.7 above.

E. GROUNDWATER MONITORING

The Permittee shall comply with the groundwater monitoring requirements specified in this permit for the land treatment facility unless the Permittee can document compliance with 35 Ill. Admin. Code 724.190(b)(3).

F. RECORDKEEPING

The Permittee shall include hazardous waste application dates, locations within the unit, and rates and volumes of each waste applied in the operating record. To facilitate control of waste application rates, the facility shall be divided into cells by means of clearly visible permanent markers as shown in Attachment F to this permit.

G. FOOD-CHAIN CROPS

The Permittee shall not grow food-chain crops in or on the treatment zone (where waste containing cadmium is applied), unless all of the conditions of 35 Ill. Admin. Code 724.376(b) are met.

H. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

The Permittee shall not place ignitable or reactive waste in the land treatment unit, unless the waste is immediately incorporated into the soil or the waste is managed so that it is protected from any material or conditions that may cause it to ignite or react (35 Ill. Admin. Code 724.381).

I. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in or on the same treatment zone, unless the procedures specified in the Approved Permit Application are followed (35 Ill. Admin. Code 724.117(b)).

In accordance with the regulations, incompatible wastes or materials must not be placed in the same treatment unit unless precautions are taken to prevent reactions that:

1. Generate extreme heat or pressure, fire or explosions, or violent reactions;
2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
4. Damage the structural integrity of run-on and run-off controls; or
5. Through other like means, threaten human health or the environment.

J. CLOSURE

Within ninety (90) days after applying the final volume of waste to the land treatment facility, the Permittee shall commence closure activities for the unit.

1. The Permittee shall notify the Illinois EPA in writing of its intent to close the land treatment facility at least sixty (60) days prior to the date that closure is expected to begin. Along with this notification, the Permittee shall submit a revised closure plan specifying any revisions to closure criteria, decontamination procedures and cost estimates based on the contemporary regulations.
2. During the closure period, the Permittee shall:
 - a. Continue all operations (including tilling, fertilization, liming, and moisture and pH control) necessary to maximize degradation, transformation or immobilization of hazardous constituents within the treatment zone as required under 35 Ill. Admin. Code 724.373(a), except to the extent that such measures are inconsistent with 35 Ill. Admin. Code 724.380(a)(8). Such activities will continue until the Oil and Grease content of the zone of incorporation (0 to 12 inches) has been reduced to a relatively stable, slightly decreasing level. When the Oil and Grease content is reduced to an acceptable level, tilling will cease as biodegradation at the low residual levels occurs without further mechanical assistance.
 - b. Continue all operations in the treatment zone to minimize run-off of hazardous constituents as required under Condition C.2;
 - c. Maintain the run-on control system as required under Condition C.3;
 - d. Maintain the run-off management system required under Condition C.4;
 - e. Control wind dispersal of hazardous waste as required by Conditions C.6.b and C.6.c above;
 - f. Continue to comply with Condition G regulating the growth of food chain crops;
 - g. Continue unsaturated zone monitoring in compliance with Condition D, except that soil-pore liquid monitoring may be terminated ninety (90) days after the last application of waste to the unit; and
 - h. Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation,

transformation or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

3. The following must be carried out during closure of the unit to ensure the requirements of 35 Ill. Admin. Code 724.216 and 724.219 are met in a logical and organized fashion:
 - a. A survey plat and/or plats must be developed by a licensed professional land surveyor identifying the location, horizontal and vertical boundaries, and dimensions of the unit being closed, relative to permanently surveyed benchmarks. In addition, the plat(s) must depict the boundaries of the facility on which the unit is located and the location of the unit within the facility. The plat(s) must also identify the location of the individual cells/areas where waste was placed/disposed in this unit. In addition, the plat(s) must:
 - 1) Contain a legal description of the unit;
 - 2) Depict and identify the boundaries of each legal parcel (by Parcel Index Number) that comprises the facility;
 - 3) Contain the U.S. EPA and Illinois EPA Identification Numbers for the facility;
 - 4) Contain a note, prominently displayed, that states:
 - a) Any disturbance of the unit is restricted in accordance with 35 Ill. Admin. Code 724, Subpart G regulations.
 - b) The waste materials contained in the unit include wastes considered to be RCRA hazardous waste. The wastes in the unit include: [the Permittee shall list wastes disposed of in the unit].
 - c) Any material removed from the unit during future activities must be managed in accordance with 35 Ill. Admin. Code, Subtitle G: Waste Disposal.
 - b. A notation must be developed and recorded on the deed to the facility, or on some other instrument that is normally examined during title search that:

- 1) Will in perpetuity notify any potential purchaser of the property that: (1) the land has been used to manage hazardous waste and (2) uses of these areas is restricted.
- 2) Contains the survey plat(s) described in Condition a above.
- 3) Identifies the dates and rates at which waste was applied to each cell within the unit, as well as a description of the type of waste applied each time (this information should be in the facility's operating record as required by 35 Ill. Admin. Code 724.379; (for wastes applied prior to January 12, 1981, this information must be provided based upon the Permittee's knowledge and any available facility records).
- 4) Indicates that more information regarding this unit can be found in the files of Illinois EPA under Illinois EPA ID No. 0338080002.

This notation must also be filed with the Illinois EPA, the County Recorder, and any local zoning authority or authority with jurisdiction over local land use. For ease of meeting the requirements of 35 Ill. Admin. Code 724.216 and 724.219, these notifications must be filed by the time certification of closure of the unit is submitted to Illinois EPA.

4. Within sixty (60) days after closure of the LTF is complete, the Permittee may submit to the Illinois EPA certification by a qualified registered professional engineer that the facility has been closed in accordance with the specifications in the Approved Closure Plan. The closure certification form in Attachment D-2 to this permit or a certification with identical wording must be used. A report documenting the completed closure efforts must accompany this certification. This report should include the following items:
 - a. A site location map.
 - b. A site layout map.
 - c. A brief discussion of the operations carried out at the facility; the unit undergoing closure; and the types of wastes managed in the unit and how waste was applied to the unit.
 - d. A description of how the LTF was closed in accordance with the approved closure plan.
 - e. A copy of the notification required by Condition J.3 above.
 - f. A certification signed by the Permittee indicating that the notification required by Condition J.3 above has been filed with entities identified in that condition. A certified copy of the document filed with the Crawford County Recorder

- must also be provided.
- g. The total volume of waste that has been placed in the land treatment area. The term waste includes wastes resulting from decontamination activities.
 - h. Scaled drawings showing the final contours (relative to mean sea level) of the land treatment area, the area and the unit, and the run-on / run-off control systems of the unit.
 - i. Cross sections of the closed land treatment unit and the soils present beneath the unit.
 - j. The volume of any waste and waste residue removed, including wastes generate during decontamination procedures.
 - k. A description of the method of waste handling and transport.
 - l. Copies of the waste manifests.
 - m. A description of the sampling and analytical methods used.
 - n. A chronological summary of closure activities and the cost involved.
 - o. Tests performed, methods, and results.
 - p. Color photographs of closure activities that document conditions before, during and after closure.
 - q. A scale drawing of all excavated or decontaminated areas and sample locations.
5. After completion of the closure period, the Permittee shall conduct post-closure care and monitoring in accordance with Section VI of this permit and described in the Approved Permit Application.
6. If the LTF must be closed as a landfill, financial assurance shall be updated within thirty (30) days following modification of the permit to incorporate this modification if revised cost estimates indicate that the existing financial assurance is inadequate.

SECTION II-A: LAND TREATMENT—WEST LTF CAMU

A. SUMMARY

The operation of the West LTF CAMU will be in accordance with the requirements listed below in this section of the permit. The West LTF CAMU is used for the treatment and disposal of remediation waste generated at the facility.

The West LTF CAMU is a 20-acre unit and consists of three distinct areas within the boundaries of the CAMU. A staging and composting area located within the CAMU boundaries will be used for pretreatment of some remediation wastes. The second area of the CAMU consists of the land treatment area. Remediation wastes, either directly from SWMUs or from composting are applied to this area for land treatment. The third area, Cell 9, is located at the northern end of the CAMU and provides for the temporary collection of and storage of runoff from the CAMU.

B. WASTE IDENTIFICATION

1. The permittee may treat and dispose of the soil, sludge, or other remediation wastes from the following SWMUs or AOCs in the CAMU:

SWMU/AOC

Name	Number
West Impoundment	SWMU 6a
Area Around Biosludge Drying Beds and Pit	SWMU 7
Former Waste Pile	SWMU 8
Former Heat Exchanger Bundle Cleaning Area	SWMU 10
Former Truck Rinse Pad	SWMU 11
Storm Water (Lab) Pond	SWMU 4
Gasoline Desulfurization Unit	AOC 2
Other on-site SWMUs or AOCs (with prior approval from the Illinois EPA)	

Waste biosolids from the wastewater treatment plant may be applied to the CAMU in lieu of purchased nutrients and microorganisms.

These wastes may be applied either individually or in a mixture taken directly from the SWMUs or AOCs.

2. The Permittee is prohibited from treating and disposal of remediation wastes that are not included in remediation wastes under Condition B.1 above without prior authorization from the Illinois EPA as described in the Approved Permit Application.
3. The hazardous constituents of the remediation wastes identified in Condition B.1 above shall be determined from the Waste Characterization Report in the Approved Permit Application.

C. DESIGN AND OPERATING REQUIREMENTS—WEST LTF CAMU

1. The Permittee shall construct, operate, and maintain the CAMU in accordance with the plans and specifications contained in the Approved Permit Application.
2. The Permittee shall construct, operate, and maintain the CAMU to minimize run-off of hazardous constituents during the active life of the unit in accordance with the plans and specifications contained in the Approved Permit Application.
3. The Permittee shall construct, operate, and maintain the run-on control system in accordance with the plans and specifications contained in the Approved Permit Application. This system must be capable of preventing run-on from at least a 24-hour, 25-year storm.
4. The Permittee shall construct, operate, and maintain a run-off management system in accordance with the plans and specifications contained in the Approved Permit Application. This system must be able to collect and control at least the water volume resulting from a 24-hour, 25-year storm.
5. The Permittee shall manage the run-on and run-off collection and holding facilities to maintain the design capacity of the systems in accordance with design plans and operating practices specified in the Approved Permit Application. The holding systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity under the provisions of the facility's NPDES permit or returned to the CAMU for moisture control.
6. The Permittee shall construct, operate, and maintain the composting area in accordance with the plans and specifications contained in the Approved Permit Application. The composting system must be constructed and operated in a manner designed to provide effective treatment of the remediation wastes.

7. The Permittee shall inspect the CAMU weekly, after storms (two inches or more precipitation within a 24-hour period), and in accordance with the inspection schedule in Section F of the Approved Permit Application to detect evidence of:
 - a. Deterioration, malfunction, or improper operation of the run-on and run-off control systems:
 - b. Improper functioning of wind dispersal control measures; and
 - c. To determine if moisture control measures are necessary.
 - 1) If excessive soil moisture is present in the treatment zone, the land treatment area shall be tilled, as soon as practicable, to facilitate drying.
 - 2) The CAMU shall be wetted or otherwise managed in accordance with the Approved Permit Application, to prevent wind dispersal and facilitate degradation of hazardous constituents. The application of remediation waste to the land treatment area to increase soil moisture content will be considered adequate to meet this requirement, provided that the application will not exceed the allowable loading rate specified in condition C.9 below.
8. Remediation waste application to the land treatment area of the CAMU shall be restricted in accordance with the following conditions: 1) Waste shall not be applied to the CAMU when the soil is either frozen or saturated, or soon after a heavy application of waste in the same area; and 2) Remediation waste shall be uniformly applied to the corrective action management unit with agricultural equipment, dump trucks, and other heavy equipment as necessary. Applied remediation wastes will be incorporated into the soil as quickly as possible, in accordance with the Approved Permit Application.
9. Remediation waste application rates for the land treatment area of the CAMU shall be in accordance with the loading rates determined during the Land Treatment Demonstration. For the West LTF CAMU, a total of 350 barrels of oil/acre/year during operation, are subject to the following conditions: 1) the maximum total oil and grease loading rate between December 1 and March 31 shall be 150 barrels/acre, 2) the maximum calendar month oil and grease application between December 1 and March 31 shall be 50 barrels/acre, and 3) the maximum weekly and daily oil and grease applications between December 1 and March 31 shall be 25 and 10 barrels/acres respectively.

10. Decontamination procedures shall be conducted as specified in the Approved Permit Application. All equipment that enters the West LTF CAMU and that contacts hazardous waste and/or hazardous constituents will be decontaminated at the decontamination pad located at the West LTF CAMU. Decontamination is defined as the removal of visible waste, waste residues, and contaminated soils on equipment originating from activities conducted at the West LTF CAMU.

D. UNSATURATED ZONE MONITORING

1. The Permittee shall monitor the soil and soil-pore liquids immediately below the CAMU treatment zone to determine if any hazardous constituents have migrated out of the treatment zone.
2. The Permittee shall implement an unsaturated zone monitoring program in accordance with the plans and specifications contained in the Approved Permit Application.
3. The Permittee shall establish a background and baseline upper tolerance limit for each hazardous constituent to be monitored in accordance with the Approved Permit Application.
4. The Permittee shall conduct soil core monitoring and soil-pore liquid monitoring immediately BTZ of the CAMU in accordance with the procedures contained in the Approved Permit Application.

The Permittee shall submit to the Illinois EPA a summary of the results of the soil core and soil-pore sampling events associated with the CAMU for each calendar year of active operation by March 15 of the following year. Upon initiation of closure of the CAMU, monitoring will be conducted in accordance with the requirements of the closure and post-closure care plans contained in the Approved Permit Application and Section VI-A of this Permit.

5. The Permittee shall follow the sampling and analysis procedures according to the procedures contained in the Approved Permit Application.
6. The Permittee shall determine whether there is a statistically significant increase in concentration for any hazardous constituent to be monitored under Condition D.1 each time the monitoring required by Condition D.4 is conducted. This determination shall be made using (1) the statistical procedures contained in the Approved Permit Application and (2) the unsaturated zone monitoring program data assessment decision tree included in the approved Permit Application as

Figure D.7-7 of Volume 5. The Permittee shall make this determination within thirty (30) days after receipt of lab analysis results.

- a. When making this determination for soil-pore liquids, the Permittee shall conduct the following steps:
 - 1) Initial sample results will be compared to background and baseline UTLs. If none of the constituent results are greater than both applicable UTLs, then the Permittee will continue routine detection monitoring.
 - 2) If any sample results are greater than both applicable UTLs, then the concentration will be confirmed by resampling and a second comparison to the UTLs.
 - 3) If the constituent concentration is confirmed to be greater than both applicable UTLs, the Permittee will notify the Illinois EPA and evaluate whether alternate operating procedures in the Approved Permit Application may be an appropriate corrective action.
 - 4) The Permittee will report the potential migration of any constituent that is significant (i.e., 1) a confirmed detection that is greater than the applicable UTLs and results in a corrective action that is not included in the Approved Permit Application; or 2) a statistically significant detection in groundwater that is determined to be from the unit; or 3) an off-site release that is determined to be from the unit) to the Illinois EPA within fifteen (15) days of the evaluation and will refrain from applying waste to the affected area of the unit. The Permittee will then determine the source of the increased constituent concentration and will submit appropriate permit modification or an alternate source determination, as required.
- b. When making this determination for soil cores, the Permittee will conduct the following steps:
 - 1) Initial sample results will be compared to background and UTLs. If none of the constituent results are greater than both applicable UTLs, then the Permittee will continue routine detection monitoring.

- 2) If any sample results are greater than both applicable UTLs, then the concentration will be confirmed by resampling and a second comparison to the UTLs.
 - 3) If the constituent concentration is confirmed to be greater than both applicable UTLs, the Permittee will notify the Illinois EPA and evaluate whether alternate operating procedures in the Approved Permit Application may be an appropriate corrective action.
 - 4) The Permittee will report the potential migration of any constituent that is significant (i.e., 1) a confirmed detection that is greater than the applicable UTLs and results in a corrective action that is not included in the Approved Permit Application; or 2) a statistically significant detection in groundwater that is determined to be from the unit; or 3) an off-site release that is determined to be from the unit to the Illinois EPA within fifteen (15) days of the evaluation and will refrain from applying waste to the affected area of the unit. The Permittee will then determine the source of the increased constituent concentration and will submit appropriate permit modifications or an alternate source determination, as required.
7. If the Permittee determines, pursuant to Condition D.6 that there is a statistically significant increase of hazardous constituents below the treatment zone, the Permittee shall notify the Illinois EPA of this within fifteen (15) days of such finding, indicating which constituents have shown statistically significant increases, and apply for a permit modification within ninety (90) days to modify the operating practices at the facility to maximize the success of degradation, transformation or immobilization processes in the treatment zone. Application of waste in the area that influences that lysimeter or soil-core location shall be discontinued immediately and shall not be resumed until approved in writing by the Illinois EPA.
8. The Permittee need not submit the permit modification required by Condition D.7 if the Permittee successfully demonstrates that a source other than the regulated unit caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation within the 90-day time period reference in Condition D.7 above.

E. GROUNDWATER MONITORING

The Permittee shall comply with the groundwater monitoring requirements specified in this permit for the CAMU unless the Permittee can document compliance with 35 Ill. Admin. Code 724.190(b)(3).

F. RECORDKEEPING

The Permittee shall include remedial waste application dates, locations within the unit, and rates and volumes of each waste applied in the operating record. To facilitate control of waste application rates, the facility shall be divided into cells by means of clearly visible permanent markers as shown in Attachment F to this permit.

G. FOOD-CHAIN CROPS

The Permittee shall not grow food-chain crops in or on the CAMU (where waste containing cadmium is applied), unless all of the conditions of 35 Ill. Admin. Code 724.376(b) are met.

H. CLOSURE

Within ninety (90) days after applying the final volume of remedial waste to the land treatment facility, the Permittee shall commence closure activities for the unit.

1. The Permittee shall notify the Illinois EPA in writing of its intent to close the CAMU at least sixty (60) days prior to the date that closure is expected to begin. Along with this notification, the Permittee shall submit a revised closure plan specifying any revisions to closure criteria, decontamination procedures and cost estimates based on the contemporary regulations.
2. During the closure period, the Permittee shall:
 - a. Continue all operations (including tilling, fertilization, liming, and moisture and pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under 35 Ill. Admin. Code 724.373(a), except to the extent that such measures are inconsistent with 35 Ill. Admin. Code 724.380(a)(8). Such activities will continue until the Oil and Grease content of the zone of incorporation (ZOI) (0 to 12 inches) has been reduced to a relatively stable, slightly decreasing level. When the Oil and Grease content is reduced to an acceptable level, tilling will cease as

biodegradation at the low residual levels occurs without further mechanical assistance;

- b. Continue all operations in the CAMU to minimize run-off of hazardous constituents as required by Condition C.2;
 - c. Maintain the run-on control system required by Condition C.3;
 - d. Maintain the run-off management system required by Condition C.4;
 - e. Control wind dispersal of remedial waste as required by Conditions C.7.b and C.7.c above;
 - f. Continue to comply with Condition G regulating the growth of food chain crops;
 - g. Continue unsaturated zone monitoring in compliance with Condition D, except that soil-pore liquid monitoring may be terminated ninety (90) days after the last application of waste to the unit; and
 - h. Establish a vegetative cover on the portion of the CAMU being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.
3. The following must be carried out during closure of the unit to ensure the requirements of 35 Ill. Admin. Code 724.216 and 724.219 are met in a logical and organized fashion:
- a. A survey plat or plats must be developed by a licensed professional land surveyor identifying the location, horizontal and vertical boundaries, and dimensions of the unit being closed, relative to permanently surveyed benchmarks. In addition, the plat(s) must depict the boundaries of the facility on which the unit is located and the location of the unit within the facility. The plat(s) must also identify the location of the individual cells/areas where waste was placed/disposed in this unit. In addition, the plat(s) must:
 - 1) Contain a legal description of the unit;
 - 2) Depict and identify the boundaries of each legal parcel (by Parcel

Index Number) that comprises the facility;

- 3) Contain the U.S. EPA and Illinois EPA Identification Numbers for the facility;
- 4) Contain a note, prominently displayed, that states:
 - a) Any disturbance of the unit is restricted in accordance with 35 Ill. Admin. Code 724, Subpart G regulations.
 - b) The waste materials contained in the unit include wastes considered to be RCRA hazardous waste. The wastes in the unit include: [the Permittee shall list wastes disposed of in the unit].
 - c) Any material removed from the unit during future activities must be managed in accordance with 35 Ill. Admin. Code, Subtitle G: Waste Disposal.
- b. A notation must be developed and recorded on the deed to the facility, or on some other instrument that is normally examined during title search that:
 - 1) Will in perpetuity notify any potential purchaser of the property that: (1) the land has been used to manage hazardous waste and (2) use of these areas is restricted.
 - 2) Contains the survey plat(s) described in Condition a. above.
 - 3) Identifies the dates and rates at which waste was applied to each cell within the unit, as well as a description of the type of waste applied each time (this information should be in the facility's operating record as required by 35 Ill. Admin. Code 724.379; for wastes applied prior to January 12, 1981, this information must be provided based upon the Permittee's knowledge and any available facility records).
 - 4) Indicates that more information regarding this unit can be found in the files of Illinois EPA under Illinois EPA ID No. 0338080002.

This notation must also be filed with the Illinois EPA, the County Recorder, and

any local zoning authority or authority with jurisdiction over local land use. For ease of meeting the requirements of 35 Ill. Admin. Code 724.216 and 724.219, these notifications must be filed by the time certification of closure of the unit is submitted to Illinois EPA.

4. Within sixty (60) days after closure of the LTF is complete, the Permittee may submit to the Illinois EPA certification by a qualified registered professional engineer that the facility has been closed in accordance with the specifications in the Approved Closure Plan. The closure certification form in Attachment D-2 to this permit or a certification with identical wording must be used. A report documenting the completed closure efforts must accompany this certification. This report should include the following items:
 - a. A site location map.
 - b. A site layout map.
 - c. A brief discussion of the operations carried out at the facility; the unit undergoing closure; and the types of wastes managed in the unit and how waste was applied to the unit.
 - d. A description of how the LTF was closed in accordance with the approved closure plan.
 - e. A copy of the notification required by Condition H.3 above.
 - f. A certification signed by the Permittee indicating that the notification required by Condition H.3 above has been filed with entities identified in that condition. A certified copy of the document filed with the Crawford County Recorder must also be provided.
 - g. The total volume of waste that has been placed in the land treatment area. The term waste includes wastes resulting from decontamination activities.
 - h. Scaled drawings showing the final contours (relative to mean sea level) of the land treatment area, the area and the unit, and the run-on / run-off control systems of the unit.
 - i. Cross sections of the closed land treatment unit and the soils present beneath the unit.
 - j. The volume of any waste and waste residue removed, including wastes

generate during decontamination procedures.

- k. A description of the method of waste handling and transport.
 - l. Copies of the waste manifests.
 - m. A description of the sampling and analytical methods used.
 - n. A chronological summary of closure activities and the cost involved.
 - o. Tests performed, methods, and results.
 - p. Color photographs of closure activities that document conditions before, during and after closure.
 - q. A scale drawing of all excavated or decontaminated areas and sample locations.
- 5. After completion of the closure period, the Permittee shall conduct post-closure care and monitoring in accordance with Section VI-A of this permit and described in the Approved Permit Application.
 - 6. If the CAMU must be closed as a landfill, financial assurance shall be updated within thirty (30) days following modification of the permit to incorporate this modification if revised cost estimates indicate that the existing financial assurance is inadequate.

I. LAND DISPOSAL RESTRICTIONS

Disposal of wastes identified in Condition B of this section within the CAMU and in accordance with all other aspects of this section does NOT constitute land disposal as defined in 35 Ill. Admin. Code 728.

SECTION III: DETECTION MONITORING

A. SUMMARY

Marathon Petroleum Company (MPC) has eight (8) existing monitoring wells, screened in the Merom Sandstone Member of the Mattoon Formation, which are utilized for the RCRA detection monitoring program for its East LTF and West LTF CAMU. The detection monitoring program will therefore consist of six (6) downgradient wells and two (2) upgradient wells.

B. DEFINITIONS

As used herein, the words or phrases set forth below shall have the following definitions:

1. "Uppermost Aquifer" refers to the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically connected with this aquifer in the vicinity of the facility. The uppermost aquifer in the vicinity of the MPC facility has been identified as the saturated zone found in the Merom Sandstone Member of the Mattoon Formation. This unit is approximately 20 feet below the land surface in the vicinity of the regulated units.
2. "Point of Compliance" refers to the vertical surface located at the hydraulically downgradient limits of the waste management area (East LTF and West LTF CAMU) extending down into the uppermost aquifer underlying the aquifer unit.
3. "Ft-bgs" refers to the number of feet below the ground surface.
4. "Ft-MSL" refer to the number of feet below the ground surface referenced to mean sea level.
5. "Detected" shall mean a concentration equal to or above the practical quantitation limit (PQL) listed in Condition III.C.1 of the Permit. For Condition III.E.1 parameters that do not have a specified PQL, "detected" shall mean a concentration equal to or above the PQL listed in USEPA's SW-846 (Third Edition) for the applicable methods specified in the approved Sampling and Analysis Procedures, which are incorporated by reference in Condition III.H of the Permit.
6. "Progressive Increase" shall mean an increase in the concentration of a constituent in successive sampling events.

7. “Stick-up” or “top of well casing” refers to the height of the reference survey datum. This point is determined within ± 0.01 foot in relation to Mean Sea Level, which in turn is established by reference to an established National Geodetic Vertical Datum.

C. IMPLEMENTATION

1. The Permittee implemented the groundwater detection monitoring program upon the effective date of the original Permit to determine if the regulated units are in compliance with the groundwater protection standard listed in Condition III.E.1.
2. The Permittee shall carry out the detection monitoring program specified in this Permit on the groundwater beneath the MPC Robinson Refinery. The uppermost aquifer is sandstone bedrock.
3. The point of compliance, defined as a vertical surface located at the hydraulically downgradient limit of the East LTF and West LTF CAMU that extends down into the uppermost aquifer underlying the waste management units, is shown on Figure E-1 of the approved Permit Application and Attachment J to this permit.

D. WELL LOCATION AND CONSTRUCTION

1. The Permittee shall maintain groundwater monitoring wells identified in the following table in accordance with the approved Permit Application, to allow for the collection of groundwater samples from the uppermost aquifer. The locations are specified in Attachment J to this permit.

MPC Well No.	IEPA Well No.	Well Depth (ft-bgs)	Well Depth Elevation (ft-MSL)	Well Screen Interval (ft-MSL)
P-02D*	G02D	19.75	516.87	522.62 – 517.62
P-03C*	G03D	26.53	503.83	509.36 – 504.36
P-04D	G04D	20.53	503.19	508.72 – 503.72
P-05D	G05D	20.94	496.61	502.55 – 497.55
P-06C	G06D	27.61	485.10	495.71 – 485.71
P-08B	G08D	23.53	489.94	496.47 – 490.97
P-09C	G09D	30.72	482.42	489.64 – 484.14
P-12A	G12D	20.24	498.41	503.65 – 498.65

* Denotes Upgradient Well(s)

2. Construction of any new monitoring well/piezometer must be at a minimum in accordance with the diagram contained in Attachment G to this Permit unless otherwise approved in writing by the Illinois EPA. Any new monitoring wells/piezometers must be continuously sampled and logged on Illinois EPA boring logs as provided in Attachment G to this Permit.
3. The Permittee shall notify the Illinois EPA within thirty (30) days in writing if any of the wells identified in Condition III.D.1 is damaged or the structural integrity has been compromised, causing the well not to serve its function or to act as a contaminant pathway. A proposal for the replacement of the subject well requires Illinois EPA approval, and shall accompany this notification. The well shall not be plugged until the new well is on-line and monitoring data has been obtained and verified, unless the well is extremely damaged and would create a potential route for groundwater contamination.
4. Should any well become consistently dry or unserviceable, a replacement well shall be provided within ten (10) feet of the existing well. The well shall maintain the same zone as the existing well and be constructed in accordance with the current Illinois EPA groundwater monitoring well construction standards at the time the well is replaced. A replacement well that is more than ten (10) feet from an existing well or that does not monitor the same geologic zone must be approved by the Illinois EPA and designated as a new well.
5. The Permittee shall submit boring logs, construction diagrams, and data sheets from installation and development of a new or replacement well to the Illinois EPA at the address below within thirty (30) days of the date that installation of the well is completed. In addition, the Permittee shall submit certification that plugging and abandonment of a well was carried out in accordance with the approved procedures to the Illinois EPA at the address below within thirty (30) days of the date that the well is plugged and abandoned. All information should be submitted to the appropriate State Agencies.

Illinois Environmental Protection Agency
Bureau of Land — #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

6. All wells deleted from the monitoring program shall be plugged and abandoned in accordance with Attachment G to this permit, or in accordance with Illinois EPA

guidelines current at the time of replacement, if different, unless otherwise approved in writing by the Illinois EPA.

7. All wells/piezometers shall be equipped with protective caps and locks. Monitoring wells and piezometers located in high traffic areas must be protected with bumper guards.
8. The Permittee shall develop any new wells until pH and Specific Conductance (SC) of groundwater stabilize prior to taking the first groundwater samples. Documentation of well development procedures, times, and pH and SC readings shall be submitted with the reports required by Condition III.D.5 above.

E. MONITORING PARAMETERS

1. The Permittee shall determine groundwater quality at the monitoring wells identified in Condition III.D.1, at both the upgradient and point of compliance locations semi-annually. Samples collected during the semi-annual sampling events of each year shall be analyzed for the parameters/constituents below:

Field Parameters	STORET No.	Units
pH (field measured)	00400	Standard Units
Specific Conductance (field measured)	00094	micromhos/cm @25°C
Temperature of Water Sample	00011	°F
Turbidity	82078	NTUs
Depth to Water (below land surface)	72019	ft
Depth to Water (below measuring point)	72109	ft-toc
Elevation of Groundwater Surface	71993	ft-MSL
Elevation of Bottom of Well #	72020	ft-MSL
Elevation of Measuring Point	72110	ft-MSL

(Top of Casing [toc])##

Shall be determined during the Second Quarter sampling event each year.

Shall be surveyed once every two (2) years or at the request of the Illinois EPA, or whenever the elevation changes as required by Condition III.J.5.

<u>Constituents</u>	<u>STORET No.</u>	<u>PQL</u> ($\mu\text{g/L}$)
<u>Volatile Organic Compounds</u>		
Benzene	34030	5
Toluene	34010	5
Ethyl Benzene	78113	5
Xylene	81551	5
<u>Phenols</u>		
m-Cresol	77151	10
o-Cresol	77152	10
p-Cresol	77146	10
2,4-Dimethyl Phenol	34606	10
Phenol	32730	10
<u>Polynuclear Aromatic Hydrocarbons</u>		
Anthracene	34220	10
Chrysene	34320	1.5
Naphthalene	34696	10
Pyrene	34469	10
2-methylnaphthalene	77416	10
Benzo (a) anthracene	34526	0.13
Benzo (b) fluoranthene	34230	0.18
Benzo (k) fluoranthene	34242	0.17
Benzo (a) pyrene	34247	0.20
Fluoranthene	34376	10
Phenanthrene	34461	10
Dibenz (a,h) anthracene	34556	0.30
Fluorene	34381	10
Indeno (1,2,3-cd) pyrene	34403	0.43
<u>Inorganics (dissolved)</u>		
Arsenic	01000	10
Cadmium	01025	5.0
Chromium	01030	50
Cobalt	01035	10
Lead	01049	7.5
Nickel	01065	100
Vanadium	01085	40

<u>Constituents</u>	<u>STORET No.</u>	<u>PQL</u> <u>(µg/L)</u>
Selenium	01145	10
Mercury	71890	2
Manganese*	01056	50
<u>Water Quality Parameters</u>		
*Sulfides	00745	NS
*Barium	01005	NS
*Chlorides	00940	NS

Values for all dissolved inorganics listed above are to be determined from a sample that has been filtered through a 0.45 micron filter membrane.

* Indicates that statistics are not to be performed on these parameters.
NS indicates that the PQL is not specified

Note: The cited STORET numbers are for reporting purposes only. Analytical results are determined in accordance with the procedures outlined in the Approved Permit Application.

2. Each of the monitoring wells listed in Condition III.D.1 above shall be sampled semi-annually in accordance with the Schedule in Condition III.J.2 below and the samples analyzed for the constituents listed in Condition III.E.1 above.
3. Alternative concentration limits (ACLs) may be established where the Permittee can determine a constituent will not pose a substantial hazard to human health or the environment:
 - a. Where a hazardous constituent has a standard found in 35 Ill. Admin. Code 620, the facility must apply for an adjusted standard as outlined in Section 28.1 of the Environmental Protection Act.
 - b. For hazardous constituents without a 35 Ill. Admin. Code 620 standard the ACLs proposed by the facility must be approved by the Illinois EPA.
4. For the statistical evaluations required in Condition III.F.5 below, background values have been established and expressed in the following manner:
 - a. Background values were determined for each indicator parameter in Condition III.E.1 above for which no representative background values,

according to Illinois EPA determination, were established at the time the permit became effective (11-4-1988).

- b. Background values are expressed in terms of the mean and standard deviation. Background values determined from data sets with less than 50% "not detected" results were determined by substituting one-half (1/2) the sample-specific reporting limit for "not detected" results and calculating mean and standard deviation. The reporting limit is the PQL as determined by the analytical laboratory. For samples with no analytical interferences or those that did not require dilution the reporting limit is equal to or less than the PQL. In data sets where greater than 50% of the results are not detected the PQL will be used as the background value. For parameters not detected, the PQL shall be the background value.

F. DETECTION MONITORING PROGRAM

1. The Permittee shall determine groundwater quality at each monitoring well at the point of compliance semi-annually during the active life (including closure and post-closure care period) of the facility. The Permittee shall express the groundwater quality at each monitoring well in a form necessary for the determination of statistically significant increases.
2. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually from the monitoring wells listed in Condition III.D.1.
3. The Permittee shall evaluate the results of the analysis required by Condition III.E.1 above and identify:
 - a. The concentration of any constituent detected that was not detected in the previous sampling event.
 - b. The concentration of any constituent detected that exhibits a progressive increase over four (4) consecutive sampling events.
4. The Permittee shall determine whether there is a statistically significant increase over the background values for each constituent identified in Condition III.E.1 (with the exception of parameters flagged otherwise) each time groundwater quality is determined at the point of compliance. In determining whether such an increase has occurred, the Permittee shall compare the groundwater quality at each monitoring well specified in Condition III.D.1 to background values derived

in accordance with statistical procedures specified in Condition III.E.4 and Section E of the Approved Permit Application.

5. The Permittee shall perform the evaluations described in Condition III.F.1 through III.F.4 above within sixty (60) days after completion of sampling.

G. GROUNDWATER ELEVATIONS

1. The Permittee shall determine the groundwater surface elevation referenced to mean sea level (MSL) at each well each time groundwater is sampled in accordance with Condition III.J.3.
2. The Permittee shall determine the surveyed elevation of the top of well casing referenced to MSL once every two (2) years, or at the request of the Illinois EPA or whenever the elevation changes as specified in Condition III.J.5. This elevation shall be measured from the north side of each well or from a consistent measuring point marked by the surveyor.
3. Elevation, as referenced to MSL, of the bottom of each monitoring well is to be updated at least annually. The mandatory measurement shall be taken during the second semi-annual sampling event each year.

H. SAMPLING AND ANALYTICAL PROCEDURES

The Permittee shall use the techniques and procedures described in the Approved Permit Application, as modified below, when obtaining and analyzing samples from the groundwater monitoring wells described in Condition III.D.1 above:

1. Samples shall be collected using the techniques described in Section E and Appendix C.3 of the Approved Permit Application.
2. Samples shall be preserved, shipped and handled (when shipped off-site for analysis) in accordance with the procedures specified in Section E and Appendix C.3 of the Approved Permit Application.
3. Samples shall be analyzed in accordance with the procedures specified in Section E and Appendix C.3 of the Approved Permit Application.
4. Samples shall be tracked and controlled using the chain of custody procedures specified in Section E and Appendix C.3 of the Approved Permit Application.

5. For the parameters or constituents listed in Condition III.E.1 above and evaluated in accordance with Condition III.I.1.a below, four (4) replicate aliquots shall be collected from each monitoring well during each sampling episode.
6. For the parameters or constituents listed in Condition III.E.1 above and evaluated in accordance with Condition III.I.1.b below, one (1) measurement shall be collected from each monitoring well during each sampling episode.

I. STATISTICAL PROCEDURES

When evaluating the monitoring results in accordance with Condition III.F.5 above, the Permittee shall use the following procedure:

1. When a constituent's background value has a sample coefficient of variation, calculated by dividing the sample standard deviation by the sample mean expressed as a percent, less than 1.00 (1.00 is equal to 100%), the Permittee shall conduct the following statistical procedure:
 - a. The Permittee shall take (at least) four (4) portions from a sample at each well at the point of compliance and determine whether the difference between the mean of the constituent at each well (using all portions taken) and the background value established for the constituent is significant at the 0.05 level using the Averaged Replicate t-test, as described in Attachment I to this permit. If the test indicates that the difference is significant, the Permittee shall repeat the same procedure within ten (10) days after receiving the laboratory data (with at least the same number of portions as used in the first test) with a fresh sample from the monitoring well. If this second round of analysis indicates that the difference is significant, the Permittee shall conclude that a statistically significant change has occurred.
 - b. Where the practical quantitation limit is used for a background value, a tolerance range of two (2) times the practical quantitation limit will be established. If an observed value is above the tolerance range or if any two (2) or more parameter values for that well exceed the established practical quantitation limit, the Permittee shall repeat the procedure within ten (10) days after receiving the laboratory data with a fresh sample from that well. If the observed value from the second sampling again fails any of the comparisons, the Permittee shall conclude that a significant change has occurred.

2. When a constituent's background value has a sample coefficient of variation calculated by dividing the sample standard deviation by the sample mean expressed as a percent, greater than or equal to 1.00 (1.00 is equal to 100%), the Permittee shall submit a proposed statistical procedure to the Illinois EPA for approval that is appropriate for the distribution of the data used to establish background values and provides a reasonable balance between the probability of falsely identifying a non-contaminating regulated unit and the probability of failing to identify a contaminating regulated unit. The procedure shall be implemented upon approval by the Illinois EPA. The Illinois EPA will issue a written determination within ninety (90) days of receipt of such proposal.

J. REPORTING AND RECORDKEEPING

1. The Permittee shall enter all monitoring, testing and analytical data obtained in accordance with Conditions III.E, III.F, III.G, III.H and III.I in the operating record. The data must include all computations, calculated means, variances, t-statistic values and t-statistic results or results of statistical tests that the Illinois EPA has determined to be equivalent.
2. Samples collected to meet the requirements of the groundwater monitoring program described in Conditions III.E, III.F, III.G, and III.I shall be collected and reported as identified in the table below. All additional information required by the groundwater monitoring program (as specified in Conditions III.E, III.F, III.G and III.I) shall also be submitted to the Illinois EPA at the address listed in Condition III.D.5 in accordance with the following schedule:

<u>Samples to be Collected During the Months of</u>	<u>Results Due to the Illinois EPA by</u>	<u>Parameter</u>
April - June	July 15	III.E.1
October-December	January 15	III.E.1

3. Groundwater surface elevation data, measured pursuant to Condition III.G.1, shall be collected semi-annually and submitted to the Illinois EPA as identified in the above table.
4. The Permittee shall report groundwater flow rate and direction in the uppermost aquifer, as required by Condition III.F.2, during the Second Quarter sampling event of each year.

5. The Permittee shall report the surveyed elevation, as required by Condition III.G.2, of the top of the well casing ("stick-up"), referenced to MSL, in accordance with the following schedule:
 - a. For the wells identified in Condition III.D.1, every two years, or at the request of the Illinois EPA, or whenever the elevation changes. The initial "re-survey" of these wells shall be conducted during the first semi-annual event following the date of the permit.
 - b. For any new wells, at the time of installation and reported in the as-built diagrams. Subsequent measurements shall be made every two years, or whenever the elevation changes.
6. The Permittee shall report the elevation of the bottom of each monitoring well identified in Condition III.D.1, referenced to MSL, annually. This measurement shall be taken during the second semi-annual sampling event in accordance with Condition III.G.3.
7. The Permittee shall submit a completed "RCRA Facility Groundwater, Leachate and Gas Reporting Form" (LPC 592) as a cover sheet for any notices or reports required by the facility's permit for identification purposes. Only one copy of the LPC 592 must accompany your submittal. However, the Permittee must submit one (1) original and (excluding the groundwater and leachate monitoring results submitted in an electronic format) a minimum of two (2) copies of each notice or report you submit to the Illinois EPA. The form is not to be used for permit modification requests.
8. Information required by Conditions III.J.2, III.J.3, and III.J.6 must be submitted in an electronic format. The information is to be submitted as fixed-width text files formatted as found in Attachment G in accordance with the schedule found in Condition III.J.2. Additional guidance regarding the submittal of the information in an electronic format can be found at <http://www.epa.illinois.gov/topics/waste-management/groundwater-monitoring/index>.
9. The Permittee shall maintain all equipment associated with groundwater monitoring wells. Dedicated pumps contained in monitoring wells identified in Condition III.D.1 must be removed, inspected, and repaired if necessary, a minimum of once every five (5) years. Information regarding the inspection and maintenance of the pumps must be reported by July 15 of that year.

10. The Permittee shall report information to the Illinois EPA in a form that can easily be reviewed. All submittals must contain tables of data, drawings, and text (as necessary) to accurately describe the information contained in the submittal.¶
11. If the Permittee determines, pursuant to Condition III.F.4, that there is a statistically significant increase for any of the parameters specified in Condition III.E.1 above at any monitoring well at the point of compliance, the Permittee shall:
 - a. Notify the Illinois EPA in writing within seven (7) days indicating what parameters and wells have shown statistical increases and providing calculations.
 - b. Sample the groundwater in all wells and determine the concentration of all constituents identified in 35 Ill. Admin. Code 724, Appendix I (40 CFR 264, Appendix IX), such that the results will accompany the permit modification request required by Condition III.J.11.d below. For Appendix I compounds detected in the analysis, the Permittee may resample within one month and report the analysis for these constituents detected. If these results for the second round of analyses confirm the first round, then these will provide the basis for compliance monitoring. If no resampling is done, the first round of analyses is the basis for compliance monitoring.
 - c. Establish background values for each 35 Ill. Admin. Code 724, Appendix I (40 CFR 264, Appendix IX) constituent found in the groundwater under Condition III.J.11.b above. For each constituent, the background values must be developed within 180 days of the date the statistically significant change was determined. The background values must be expressed in a form necessary for the determination in Condition III.F.4.
 - d. Within ninety (90) days, submit to the Illinois EPA an application for a permit modification to establish a compliance monitoring program meeting the requirements of 35 Ill. Admin. Code 724.199. The application must include the following information:
 - 1) An identification of the concentration of any constituents found in the groundwater at each monitoring well at the point of compliance under Condition III.J.11.b above.

- 2) Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of 35 Ill. Admin. Code 724.199.
 - 3) Any proposed changes to the monitoring frequency, sampling and analysis procedures, or methods or statistical procedures used at the facility necessary to meet the requirements of 35 Ill. Admin. Code 724.199.
 - 4) For each hazardous constituent found at the point of compliance, a proposed concentration limit under 35 Ill. Admin. Code 724.194(a)(1) or 724.194(a)(2), or a notice of intent to seek an alternate concentration limit for a hazardous constituent under 35 Ill. Admin. Code 724.194(b).
- e. Submit to the Illinois EPA a corrective action feasibility plan within 180 days to meet the requirements of 35 Ill. Admin. Code 724.200 unless all hazardous constituents identified under Condition III.J.11.b are listed in 35 Ill. Admin. Code 724.194 and their concentrations do not exceed the respective values given in that table or the Permittee has sought an alternate concentration limit under Condition III.J.11.d.iv above for every hazardous constituent identified under Condition III.J.11.b.
 - f. Within 180 days submit to the Illinois EPA all data necessary to justify any alternate concentration limit for a hazardous constituent sought under Condition III.J.11.d.iv.
12. If the Permittee determines, pursuant to Condition III.F.4, that there is a statistically significant increase above the background values for the parameters specified in Condition III.E.1, the Permittee may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis or evaluation. The Permittee shall submit a permit modification application in accordance with Condition III.J.11.d unless the demonstration successfully shows that a source other than the regulated unit caused the increase or that the increase resulted from errors in sampling, analysis or evaluation and the Illinois EPA concurs. To make this demonstration, the Permittee shall:
 - a. Notify the Illinois EPA in writing they intend to make this demonstration. This notification must be submitted to the Illinois EPA within seven (7) days of the date that the increase is discovered.

- b. Submit a report to the Illinois EPA that demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from an error in sampling, analysis or evaluation. This report must be submitted within ninety (90) days of the date that the increase is discovered.
- c. Submit to the Illinois EPA a request to make any appropriate changes to the detection monitoring program. This request must be submitted within ninety (90) days of the date that the increase is discovered.
- d. Continue to monitor in accordance with the detection monitoring program at the facility.

K. REQUEST FOR PERMIT MODIFICATION

- 1. If the Permittee or the Illinois EPA determines that the detection monitoring program no longer satisfies the requirements of 35 Ill. Admin. Code 724, Subpart F, the Permittee must, within ninety (90) days of notification of the determination, submit an application for a permit modification to make any appropriate changes to the program that will satisfy the regulations.
- 2. Conditions in this permit may be modified in accordance with 35 Ill. Admin. Code 705.128 if there is cause for such modification as defined in 35 Ill. Admin. Code 702.184. Cause for modification identified in this section include, but are not limited to, alternations to the permitted facility, additional information that would have justified the application of different permit conditions at the time of issuance, and new regulations.

SECTION IV: CORRECTIVE ACTION

A. INTRODUCTION

In accordance with Section 3004(u) and (v) of RCRA and 35 Ill. Admin. Code 724.201, the Permittee must institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any SWMU or AOC at its Robinson Refinery. This section contains the conditions to be followed to ensure that these requirements are met.

1. A comprehensive list of all SWMUs and AOCs of concern at the facility is contained in Attachment E located at the end of this permit.
2. The original RCRA permit for this facility was issued jointly by the Illinois EPA and USEPA on September 30, 1988; the USEPA portion of that permit contained corrective action requirements. The Permittee addressed thirty-six (36) SWMUs to the satisfaction of USEPA and Illinois EPA under this permit. These SWMUs include SWMUs 1 thru 5, 6A, 6B, 7 thru 11, 12A, 12B and 13 thru 34.
3. Several corrective action related projects arose between the time that corrective action had been completed to the satisfaction of USEPA and the time when a renewed RCRA permit was issued for this facility and the Illinois EPA formally assumed corrective action oversight responsibilities at this facility in 2007. Illinois EPA also oversaw corrective action efforts at the facility during this interim time period.
4. On November 16, 2007, the Illinois EPA renewed MPC's RCRA permit for this facility and assumed oversight of the RCRA corrective action program. The 2007 renewal identified the activities that still needed to be carried out to ensure the requirements of 35 Ill. Admin. Code 724.201 were met.
 - a. The 2007 renewed permit identified seventeen (17) SWMUs (fifteen (15) new ones (SWMUs 35–49) and two (2) previously addressed under the oversight of USEPA (SWMUs 23 and 32) and twelve (12) AOCs (AOCs 1–12) that needed to be addressed.
 - b. One SWMU (SWMU 50) and five (5) AOCs (AOC 13A, 13B, 14, 16, and 17) are new units identified as needing to be addressed by the facility's RCRA corrective action program during the course of time that the 2007 renewed permit has been in effect.

- c. A Perimeter Groundwater Program has been established in accordance with Condition III.D.1 of the 2007 renewed permit . This program is intended to be a supplemental groundwater monitoring program to identify any potential releases beyond the facility boundary and to provide support for groundwater activities occurring throughout the facility.
 - d. AOC 15 was created during the course of the 2007 renewed permit to include all SWMUs and AOCs within the refinery process area and for mainly safety reasons within AOC 15 are being deferred. However, any groundwater monitoring associated with the units in AOC 15 is to be incorporated into the Perimeter Monitoring Program (PMP).
- 5. Additional work remains to be carried out complete corrective action at the SMWUs and AOCs still of concern at this facility.
 - 6. The Permittee may operate, as needed, the existing CAMU as authorized under this permit, for the management of remediation wastes as part of the overall corrective action efforts at this facility. The Permittee shall (in coordination with the Illinois EPA) modify (as necessary) this permit to reflect any changes in the CAMU design, construction, operation, and management programs approved by the Illinois EPA. This permit modification will be subject to the appropriate documentation submittals, review and comment periods, and technical approval by the Illinois EPA.
 - 7. Environmental Land Use Controls (ELUCs) have been established as part of the completed corrective action efforts at this facility. These ELUCs place certain restrictions on future activities at the facility.
 - 8. The Permittee must implement corrective action, as appropriate, for any future releases from SWMUs or AOCs present at the facility.
 - 9. The requirements of 35 Ill. Admin. Code 742 (Tiered Approach to Corrective Action Objectives (TACO)) shall be met, when applicable, in establishing remediation objectives for corrective action.
 - 10. All Illinois EPA final decisions regarding RCRA corrective action at this facility are subject to the appeal provisions of the Illinois Environmental Protection Act.

B. CORRECTIVE ACTION EFFORTS COMPLETED UNDER THE OVERSIGHT OF USEPA

1. A RCRA Permit was issued for this facility on September 30, 1988 (Log B-56). The permit consisted of two parts — an Illinois EPA portion dealing with hazardous waste management units and a USEPA portion based in part on Hazardous Waste Solid Waste Amendments (HWSA) for activities associated with corrective action. This permit required that an RCRA Facility Investigation (RFI) workplan be developed and implemented for the following SWMUs:
 - a. SWMU 1 — An area adjacent to the garage that contained a 300-gallon underground storage tank.
 - b. SWMU 2 — The closed landfarm located in the northeast section of the facility.
 - c. SWMU 3 — The Oily Sludge Surface Impoundment, the DAF Skimmings Surface Impoundment and the Bulk Waste Surface Impoundment; these units were also hazardous waste management units covered by the Illinois EPA portion of the RCRA permit. These impoundments were eventually “clean closed” on November 26, 2001 (Log No. B-56-M-3) in accordance with plans and reports approved by Illinois EPA.
 - d. SWMU 4 — The stormwater pond (located in the northwest corner of the facility (aka Lab Pond)).
 - e. SWMU 5 — The Aeration Surge/Activated Sludge Basin that was part of the wastewater treatment plant.
 - f. SWMU 6 — (a) the West Impoundment and (b) the Wabash Pond.
 - g. SWMU 7 -- The five Bio-Sludge Drying Impoundments and Bio-Sludge Pit.
 - h. SWMU 8 -- The waste pile area at the West Impoundment.
 - i. SWMU 9 -- The five weathering pad areas, located respectively near Tanks 805, 1015, 952, 1022, and 911.
2. USEPA approved a RFI Phase I Workplan for the nine SWMUs identified above on September 27, 1991.

3. On January 25, 1993, USEPA approved an interim status RCRA closure plan for SWMU 5 (the Aeration Surge/Activated Sludge Basin) as these impoundments had become RCRA regulated hazardous waste management units in 1991 when the Toxicity Characteristics Leaching Procedure (TCLP) test replaced the Extraction Procedure (EP) Toxicity test for determining the toxicity of hazardous waste and the list of contaminants of concern was expanded to include, among others, benzene).
4. On May 4, 1993, USEPA approved a request to add two SWMUs to the RFI effort (the Old Heat Exchanger Bundle Sludge Cleaning Area (SWMU 10) and the Old Truck Wash Station (SWMU 11)) and required that an RFI workplan be submitted for these units.
5. On August 9, 1993, a RFI Phase I Workplan Addendum for the SWMUs 10 and 11 identified above was approved by USEPA.
6. On January 14, 1994, USEPA granted clean closure of SWMU 5; however on January 21, 1994 USEPA required re-sampling of the groundwater at this unit to determine the source of discovered contamination at well P101A; quarterly groundwater monitoring was required.
7. A RFI Phase I Final Report was approved by USEPA on February 28, 1994. No further corrective action was determined to be needed for SWMUs 1, 3, and 5 and a RFI Phase II investigation was determined to be needed for SWMUs 2, 4, 6 (a and b), 7, 8, 9, 10, and 11.
8. A RFI Phase II Workplan was approved by USEPA on May 13, 1994.
9. On March 2, 1995, closure of SWMU 5 was determined to be complete by USEPA, based upon the results of the additional monitoring required by Item 6 above.
10. On June 13, 1995, USEPA approved an addendum to the RFI Phase II Workplan.
11. On May 20, 1997, USEPA granted No Further Action (NFA) for SWMUs 2, 6 (a and b), 7, 8, 9, 10 and 11, but not SWMU 4.
 - a. This determination for SWMUs 2, 6b, and 9 was based on the results of the RFI efforts conducted at the facility.
 - b. This determination for SWMUs 6a, 7, 8, 10 and 11 was based on the

results of a remedial action take at each unit.

12. On May 4, 1999, USEPA granted termination of corrective action for all SWMUs of concern at the facility and concurred with the Illinois EPA in the determination that NFA was necessary at SWMU 4 provided an institutional control was established to place certain restrictions on future activities at SWMU 4. (i.e., ELUC). USEPA also informed the Permittee that the USEPA corrective action requirements in the RCRA Permit would be terminated and Illinois EPA would be reissuing the RCRA Permit with their own corrective action conditions.

C. CORRECTIVE ACTION EFFORTS OVERSEEN BY ILLINOIS EPA BEFORE A RENEWED RCRA PERMIT WAS ISSUED TO THE FACILITY.

1. USEPA's May 4, 1999 letter terminated MPC's corrective action responsibilities under the USEPA portion of the RCRA permit issued on September 30, 1988. Illinois EPA and MPC then worked together after this time to address any corrective action related issues that arose prior to a renewed RCRA permit being issued to this facility by the Illinois EPA (this renewed permit would contain any necessary corrective action requirements as the Illinois EPA had become authorized for the RCRA corrective action program in April 1990). Attachment E at the end of this permit contains a list of the key corrective action related plans/reports submitted to the Illinois EPA during this time period, as well as the date of the Illinois EPA's response to each submittal.
2. In 2002, the Permittee performed a SWMU evaluation/assessment in anticipation of USEPA transferring corrective action authority to the Illinois EPA. A total of fourteen (14) additional SWMUs (SWMU 35 through 48) and twelve (12) AOCs (AOCs 1 through 12) were identified as needing to be addressed by the RCRA corrective action program at the facility.
3. The Permittee conducted an initial investigation in 2002 in the area where a Gasoline Desulfurization Unit (GDU) was to be constructed starting in 2003 (this unit was to be constructed within AOC 2 that was identified in 2002 by the Permittee as a newly identified unit that needed to be addressed by the RCRA corrective action program being implemented at the facility). Contamination was encountered during this initial investigation and while the existing RCRA permit did not specifically require the Permittee to address AOC 2, Illinois EPA and the Permittee worked together to ensure that the encountered contamination was properly addressed and that these efforts would eventually be incorporated into the corrective action provisions of the renewed RCRA permit for the facility.

The following is a summary of actions taken by the Illinois EPA regarding corrective action efforts at the GDU from 2003 until 2007, when the renewed RCRA permit was

issued for the subject facility.

- a. On February 21, 2003, the Illinois EPA approved a report that contained the results of an investigation for potential contamination at the GDU; this submittal also contained a workplan to further characterize the contamination at this location.
- b. On March 27, 2003, the Illinois EPA determined that any remediation waste generated during construction of the GDU could be placed on the West Land Treatment Facility CAMU covered by Section IV-A of the subject facility's 2007 RCRA permit.
- c. On July 17, 2003, the Illinois EPA approved a report documenting the results of investigation efforts at the GDU and a corrective measures plan to be implemented at the GDU.
- d. On February 17, 2004, the Illinois EPA approved a request to extend the due date for submittal of a corrective measures report associated with remedial efforts being carried out at the GDU.
- e. On September 13, 2004, the Illinois EPA approved a Corrective Measures Report associated with corrective action efforts at the GDU. This report contained: (1) the results of additional investigation efforts at the GDU; (2) information regarding soil removal efforts carried out at the GDU; and (3) an outline of how remaining soil contamination will be addressed by both interim and long-term remediation efforts.
- f. On December 16, 2004, the Illinois EPA approved an addendum to the Corrective Measures Report mentioned in Condition III.C.3.e above.
- g. On May 6, 2005, the Illinois EPA approved a request to modify the groundwater monitoring program at the GDU.
- h. On November 1, 2005, the Illinois EPA approved a request to modify the groundwater monitoring/remediation program at the GDU.
- i. On November 23, 2005, the Illinois EPA approved two (2) addenda to the Corrective Measures Report mentioned in Condition III.C.3.e.
- j. On April 21, 2006, the Illinois EPA acknowledged receipt of an institutional control that had been established to support approved remediation objectives

associated with soil remediation efforts carried out at the GDU.

4. On May 9, 2002, the Illinois EPA determined that no further action would be required at SWMU 4 based in part on the fact that an institutional control had been established placing certain restriction on future activities at the facility.
5. On June 27, 2002, the RCRA permit for the facility was modified to allow the West Land Treatment Facility to be used as a CAMU (SWMU 20) to manage remediation waste generated at the facility.
6. On September 5, 2002, the Illinois EPA sent a letter indicating it agreed with USEPA's NFA determination for the original SWMUs identified in Condition III.A.2 above.
7. In December 2002, the Permittee sent a letter to the Illinois EPA reporting the identification of sixteen (16) SWMUs and fourteen (14) potential AOCs during a re-assessment of the Robinson Refinery in anticipation of transfer of Corrective Action Program authority from USEPA to Illinois EPA.
8. On June 9, 2005, the Permittee sent a letter to the Illinois EPA reporting the identification of a newly identified SWMU, the Former Paint Storage Area (SWMU 49). The Illinois EPA's November 23, 2005 letter acknowledged the inclusion of this SWMU in the RCRA renewal application.
9. On April 24, 2006, the Permittee sent a letter to the Illinois EPA and USEPA identifying newly discovered impacts to soils found during a geotechnical investigation at existing SWMUs 2 and 6a based on their locations; these will be incorporated into the site's corrective action plan, as will the results of the overall geotechnical investigation. It must be noted that units were not formally added to the list of SMWUs still of concern at this facility until February 8, 2012.
10. On November 16, 2007, the Illinois EPA issued a renewed RCRA permit for this facility and assumed oversight of the facility's corrective action program.

D. CORRECTIVE ACTION EFFORTS COMPLETED IN ACCORDANCE WITH THE RENEWED RCRA PERMIT ISSUED NOVEMBER 16, 2007

The Illinois EPA issued a renewed RCRA permit for this facility on November 16, 2007. Among other things, this permit contained requirements for carrying out the RCRA corrective action program. A list of key corrective action related plans/reports submitted to the Illinois EPA after the renewed RCRA permit was issued is contained in Attachment E at the end of this permit. The date of the Illinois EPA's response to each submittal is also provided as well as an indication of whether the submittal was approved

or disapproved. These items identified in italicized type in this table have yet to be responded to by the Illinois EPA.

1. Section III of the renewed RCRA permit issued November 16, 2007 set forth the program to be used in addressing seventeen (17) SWMUs (new SWMUs 35–49 as well as SWMUs 23 and 32) and twelve (12) AOCs (AOC 1–12) needing to be addressed by the RCRA corrective action program being implemented at the facility. The first step in this process was to categorize each SWMU/AOC as follows:
 - a. Category A — Refinery Perimeter SWMUs/AOCs
Category A SWMUs, AOCs, or SWMU/AOC groups are those with the greatest potential for risk to human health and the environment and are the first priority for corrective action activities. A key element of the Corrective Action Plan for Category A SWMUs and AOCs was development and implementation of a Refinery-wide perimeter groundwater monitoring program. Category A units include newly identified SWMUs and AOCs at the refinery perimeter and those units at which a direct exposure might occur, including those units along the perimeter of the refinery used for waste management and/or that have known contamination. The Category A SMWUs are 39, 40, 43, 44, 46 and 49. The Category A AOCs are AOC 2, 3, 5, 6, 7, 8 and 11.
 - b. Category B — Refinery Interior SWMUs/AOCs
Category B units include the SWMUs and AOCs within the refinery that were used for waste management or at which contamination is present or potentially present. These units will be investigated after investigation activities for the Category A units have been completed. The Category B SWMUs are 2, 6A, 23, 32, 41, 42 and 45. The Category B AOCs are AOC 1, 4, 9, 10 and 12
 - c. Category C — No Further Action SWMUs/AOCs
Category C includes the newly identified SWMUs/AOCs that are not believed to present any risk to human health or the environment or that are being regulated under other programs. For the purposes of RCRA corrective action and absent any new information that becomes available, NFA was required for these SWMUs/AOCs. The Category C units include SWMU 35, 36, 37, 38, 47 and 48.
2. On August 6, 2008, the Illinois EPA approved a PMP established in accordance with Condition III.D.1 of the renewed RCRA permit issued November 16, 2007. This program is intended to be a supplemental groundwater monitoring program to identify

any potential releases beyond the facility boundary and to provide support for groundwater activities occurring throughout the facility.

3. On May 14, 2009, the Illinois EPA approved a plan to conduct a Phase I/II RFI for the Category A SWMUs/AOCs.
4. On August 28, 2009, the Illinois EPA approved modifications to the PMP (B-56R-CA-19)
5. On May 10, 2010, the Illinois EPA approved modifications to the PMP (B-56R-CA-25)
6. On June 14, 2010, the Illinois EPA approved two submittals regarding newly identified areas of concern at the facility (B-56R-CA-24 and 25).
 - a. A Light Non-Aqueous Phase Liquid (LNAPL) was discovered in an area adjacent to existing AOC 13A. This LNAPL will be evaluated along with AOC 13A as Category B units.
 - b. AOC 14 (Area South of Waste Container Storage Area) is a newly identified unit and will be evaluated as a Category B unit.
7. On October 4, 2010, the Illinois EPA approved modifications to the PMP (Log No. B-56R-CA-27)
8. March 14, 2011, the Illinois EPA approved modifications to the PMP.
9. On July 5, 2011, the Illinois EPA approved a Phase I/II RFI report for Category A units. Based upon the results of this investigation:
 - a. NFA is required at SWMUs 43, 44, 46, and AOC 6.
 - b. Additional soil investigation required at the New Roll-Off Box Storage Area (a part of SWMU 39). NFA is required at the other four areas associated with SWMU 39.
 - c. Additional soil investigation effort required at SWMU 40.
 - d. Additional soil investigation and a corrective measures effort is required for the soils at SWMU 49, AOC 2 (Tank 825 Area and GDU Boring B-94 Area), AOC 8 and AOC 11.

- e. Additional soil and groundwater investigation efforts and a corrective measures effort must be carried out at AOC 3, AOC 5, and AOC 7.
10. On October 11, 2011, the Illinois EPA approved information related to the PMP (Log No. B-56R-CA-32 and 34).
 11. On February 8, 2012, the Illinois EPA approved a Phase I/II RFI Workplan for the Category B SWMUs/AOCs. It must be noted that this list expanded from the original Category B SWMUs to include: (1) SWMUs 2 and 6, based on the April 24, 2006 MPC submittal identified in Condition 18 above; and (2) newly identified units SWMU 50, AOC 13A, AOC 13B, and AOC 14.
 12. The RFI Phase I/II workplan for the Category B SWMUs/AOCs approved on February 8, 2012 also contained procedures for further investigation, as needed, at the following Category A SWMUs/AOCs: SWMU 39/New Roll-Off Box Storage Area; SWMU 40, AOC 2, AOC 3, AOC 5, AOC 7 and AOC 8.
 13. On May 8, 2012, the Illinois EPA approved information associated with a new AOC, AOC 16, the Penex Release Area (B-56R-CA-38).
 14. On May 23, 2012, the Illinois EPA approved modifications to the PMP. This letter also approved the establishment of a new AOC, AOC 15 (SWMUs and AOCs in the Refinery Process Area), and deferred further investigation of the soils within this unit. However, the groundwater at this unit must be monitored and the groundwater monitoring program for AOC 15 must be incorporated into the PMP (B-56R-CA-35, 36, 37 and 39). AOC 15 includes the following:
 - SWMU 13 - HF Alky Tank (NFA determination already made for unit)
 - SWMU 32 - Sludge Burial Areas/Contaminated Soil/Stained Surface Water in Tank Containment Areas (additional soil investigation needed for unit)
 - SWMU 38 - MOSC Tank (Tank 21D-91) (NFA determination already made)
 - SWMU 39 – Less than 90-day Storage Area, Paint Waste Storage Area (NFA already made for unit)
 - SWMU 48 - Satellite Accumulation Areas
 - SWMU 49 - Former Paint Storage Area (corrective measures for soil necessary)

AOC 2 - Lincolnite Burial Area/Gasoline Desulfurization Unit Area (NFA determination already made for soils in area; groundwater remediation being implemented in area)

AOC 2 - Lincolnite Burial Area/825 Tank Area (corrective measures necessary for soils)

AOC 2 - Lincolnite Burial Area/Boring GDU-B-94 Area (additional soil investigation necessary)

AOC 12 - Pumphouse Line Leak (soil investigation to be deferred)

AOCs 13A and 13B - Former Caustic Tank Area (soil investigation to be deferred)

15. On October 15, 2012, the Illinois EPA approved modifications to the PMP (B-56R-CA-41, 42, 43 and 45).
16. On October 15, 2012, the Illinois EPA approved modifications to the groundwater monitoring and remediation program at the GDU (B-56R-CA-40).
17. On October 23, 2012, the Illinois EPA approved information associated with installation of several wells associated with the PMP (B-56R-CA-46).
18. On December 18, 2012, the Illinois EPA approved an investigation report and corrective action plan for AOC 16 (B-56R-CA-44).
19. On February 15, 2013, the Illinois EPA approved changes to the schedule for the RCRA corrective action program and acknowledged a new Area of Concern referred to as AOC 17-Area South of Combustor Pond (B-56R-CA-47 and CA-51).
20. On May 22, 2013, the Illinois EPA approved an evaluation of the Fall 2012 groundwater monitoring results with the PMP (Log No. B-56R-CA-52 and 54).
21. On June 6, 2013, the Illinois EPA approved request to modify the remediation efforts at the GDU and AOC-2. (Log No. B-56R-CA-55).
22. On August 28, 2013, the Illinois EPA approved an Alternate Source Demonstration for Change in Groundwater Quality at the PMP during the 2nd Quarter 2012. (Log No. B-56R-CA-49 and 50).

23. On September 12, 2013, the Illinois EPA approved a request that no investigation is necessary at SWMU 50 and approved a proposed investigation workplan for AOC 17 (Area South of Combustor Pond). (Log No. B-56R-CA-53, 56 and 57).
24. On November 13, 2013, the Illinois EPA approved an Alternate Source Demonstration for change in groundwater quality associated with the PMP. (Log No. B-56R-CA-59).
25. On March 6, 2014, the Illinois EPA determined NFA is necessary for AOC 16 provided an Environmental Land Use Control was submitted. (Log No. B-56R-CA-60).
26. On August 5, 2014, the Illinois EPA approved changes to alternate source demonstration associated with the PMP. (Log No. B-56R-CA-62 and 63)
27. On August 18, 2014, the Illinois EPA issued a NFA determination for the groundwater at the GDU and AOC 2 areas. (Log No. B-56R-CA-58).
28. On September 17, 2014, the Illinois EPA approved a Request to Reduce Sampling and Reporting Requirements for the PMP. (Log No. B-56R-CA-65).
29. On September 24, 2014, the Illinois EPA approved a modification to the PMP. (Log No. B-56R-CA-66).
30. On November 6, 2014, the Illinois EPA approved the evaluation of the indoor air exposure route for AOC 16. (Log No. B-56R-CA-64).
31. On February 18, 2015, the Illinois EPA approved the Executed Draft Environmental Land Use Control for the GDU and AOC 2 (Log No. B-56R-CA-67). This brought the corrective action process at the GDU and AOC 2 to completion, except for two individual locations within AOC 2.
32. On March 3, 2015, the Illinois EPA approved a modification to the PMP. (Log No. B-56R-CA-68)
33. On March 30, 2015, the Illinois EPA approved an Alternate Source Demonstration for a change in groundwater quality associated with the PMP. (Log No. B-56R-CA-69).
34. On November 2, 2015, the Illinois EPA approved the proposed construction activities in the vicinity of SMWU 5 (Aerated Surge/Activated Sludge Basin) and AOC 17 (Area South of Combustor Pond). (Log No. B-56R-CA-70)

35. On November 20, 2015, the Illinois EPA approved a document entitled RFI Phase I/II Report for Category B and Supplemental Category A SWMUs and AOCs. (Log No. B-56R-CA-61).
36. On February 29, 2016, the Illinois EPA approved the Supplemental Phase II RFI Work Plan for Proposed Groundwater Investigation at SWMU 40 (Wash Pad) and AOC 17 (Area South of Combustor Pond). (Log No. B-56R-CA-72)
37. On March 22, 2016, the Illinois EPA approved an ELUC filed with Crawford County on December 10, 2015 as Document 2015-03424 for AOC 16 Penex Release Area (located near Tank 77C-14). This ELUC requires industrial/commercial land use, point of human exposure moved to Refinery's fence line for soil-to-groundwater exposure route and building control technology. In addition, this letter brought corrective action at AOC 16 to completion. (Log No. B-56R-CA-73)
38. On October 7, 2016, the Illinois EPA approved an Alternate Source Demonstration for a change in groundwater quality associated with the PMP during the Spring 2015 sampling event. (Log No. B-56R-CA-74)
39. On March 10, 2017, the Illinois EPA approved an Alternate Source Demonstration for a change in groundwater quality associated with the PMP. (Log No. B-56R-CA-75&77; letter incorrectly identified submittal as Log No. B-56R-CA-74)
40. On May 19, 2017, the Illinois EPA approved Updated Upper Prediction Limit Values for the PMP. (Log No. B-56R-CA-76)
41. On May 19, 2017, the Illinois EPA approved an Alternate Source Demonstration for a change in groundwater quality associated with the PMP. (Log No. B-56R-CA-79)

E. CORRECTIVE ACTION EFFORTS THAT MUST STILL BE CARRIED OUT AT THE FACILITY

As indicated in Subsections III.B, III.C and III.D above, the Permittee has completed a substantial amount of corrective action work to date at this facility. The corrective action efforts that must still be carried out at this facility and the process by which these efforts are to be carried out are as follows:

1. The Permittee must eventually address the soils in AOC 15 (the process Area) in accordance with Illinois EPA's May 23, 2012 letter and a document submitted by the Permittee entitled "Identification of New Area of Concern (AOC)—Proposed Process Area AOC—AOC 15," dated October 12, 2011. Of special concern is addressing the

soils at AOC 12, 13A and 13B.

2. The Permittee must continue to implement the approved PMP that includes a groundwater monitoring program for AOC 15
3. Properly addressing the following SWMUs and AOCs

SWMU 2	AOC 2
SWMU 23	AOC 3
SWMU 32	AOC 5
SWMU 39	AOC 7
SWMU 40	AOC 8
SWMU 41	AOC 9
SWMU 45	AOC 10
SWMU 49	AOC 11
	AOC 14
	AOC 17

A detailed evaluation of each of these units as well as recommended next steps are contained in a document entitled "RFI Supplemental Phase II Report and Corrective Measures Plan, Category A and B SWMUs and AOCs, submitted to Illinois EPA on August 31, 2016." Illinois EPA has yet to complete its review of this submittal.

4. Remediation objectives to be achieved by the efforts described above must meet the requirements of 35 Ill. Admin. Code 620, 724.201 and 742.
5. If any SWMU or AOC is closed as a landfill, then closure and post-closure care of that landfill must meet the applicable requirements in 35 Ill. Admin. Code, Subtitle G: Waste Disposal.
6. The Permittee must develop plans and reports, as appropriate, to document the procedures used to complete the corrective action efforts set forth in Condition E.1 thru E.3 above.
 - a. These plans and reports should be developed in general accordance with the procedures previously used by the Permittee during the course of implementing a corrective action program at this facility under Illinois EPA's oversight since 2002.
 - b. The Illinois EPA will provide the Permittee with guidance regarding the contents of these plans and reports as needed.

- c. These plans and reports are subject to Illinois EPA review and approval.
- d. The Illinois EPA's final decision of these submittals will be subject to appeal provisions set forth in Section 40 of the Illinois Environmental Protection Act.

F. ELUCs ESTABLISHED AT THE FACILITY

Four ELUCs have been established in accordance with 35 Ill. Admin. Code 742 as part of the completed corrective action efforts at this facility. These ELUCs place certain restrictions on future activities at the facility at SWMU 3, SWMU 4, AOC 2 and AOC 16.

- 1. The three surface impoundments that comprise SWMU 3 (the Oily Sludge Pit, the DAF Skimmings Pit and the Bulk Waste Pit) were former hazardous waste management units were included in the initial RCRA permit issued for this facility. However, these units were eventually closed in accordance with plans approved by Illinois EPA and on November 26, 2001, Illinois EPA determined that SWMU 3 had been closed in accordance with 35 Ill. Admin. Code 742, provided an ELUC was established placing restrictions on future activities at these units. The ELUC regarding SWMU 3 is discussed in Section II of this permit.
- 2. The ELUC for AOC 2 was filed with the Crawford County Recorder on January 3, 2006 as Document Number 2006-00023. This ELUC is placed on property with a PIN of 05-1-34-000-021-000 and required that, in the future:
 - a. The groundwater under the property shall not be used as a potable supply of water.
 - b. The land use for AOC 2 and the GDU Investigation Area are restricted to industrial/commercial property in accordance with 35 Ill. Admin. Code 742.115. The location of these areas relative to the entire MPC property is shown in Exhibit B-1 of the ELUC. A surveyed, scaled map of AOC 2 is shown in Exhibit B-2 of the ELUC and a surveyed, scaled map of the GDU Investigation Area is shown in Exhibit B-3 of the ELUC.
 - c. There is an engineered barrier at sample location GDU-V-65 used to exclude the industrial/commercial soil ingestion exposure route for benzo(a)pyrene. The engineered barrier consists of 7.8 feet of clean fill material overlying sample location GDU-V-65. A surveyed, scaled map showing the lateral extent of the engineered barrier is presented in Exhibit

B-4 of the ELUC. A sectional view of the engineered barrier is presented in Exhibit B-5 of the ELUC.

- d. The engineered barrier identified above and defined within the boundaries shown in Exhibit B-4 of the ELUC must be appropriately maintained. Maintenance of the engineered barrier will primarily consist of prohibiting excavation of the fill material unless the following specific requirements are met.
1. If excavation of the clean fill material or the underlying native soil within the boundaries of the engineered barrier shown in Exhibit B-4 is required, it shall be conducted in a manner that is protective of human health, including the use of PPE if deemed necessary, implementing the appropriate environmental oversight managing the soil as waste in accordance with 35 Ill. Admin. Code Subtitle G, collecting verification samples, and preparing a site safety plan that meets the requirements of 29 CFR. In addition, construction workers shall be notified in advance of the excavation, including identification of the contaminants of concern that are present. The Illinois EPA will be contacted for concurrence prior to commencing excavation of the clean fill material or the underlying native soil.
 2. The hydrocarbon contaminated saturated soil present beneath the northeast corner of the Instrument Air Compressor Unit foundation could not be excavated because this would have compromised the integrity of the unit's foundation. The extent of the hydrocarbon contaminated soil beneath the Instrument Air Compressor Unit has not been clearly defined; therefore, soil beneath the entire foundation of the Instrument Air Compressor Unit is included as part of this ELUC. A surveyed, scaled map showing the lateral extent of the area addressed by the Tier 3 evaluation for technical impracticality is presented in Exhibit B-6 of the ELUC. Any excavation conducted beneath the foundation of the Instrument Air Compressor Unit shall be conducted in a manner that is protective of human health, including the use of PPE if deemed necessary, implementing the appropriate environmental oversight, managing the soil as waste in accordance with 35 Ill. Admin. Code Subtitle G, collecting verification samples, and preparing a site safety plan that meets the requirements of 29 CFR. In addition, construction workers shall be notified in advance of the excavation, including identification of the contaminants of concern that are present. The Illinois EPA will be contacted for concurrence prior to commencing

excavation beneath the foundation of the Instrument Air Compressor Unit.

- e. The point of human exposure for the soil-to-groundwater exposure route was relocated from the source area to the Refinery's fence line, which is located at or within the Refinery's property boundary. The source areas to which this relocation of the point of human exposure applies are as follows: (1) benzene at GDU-B-113, GDU-B-119, GDU-B-135, GDU-B-136, GDU-V-63, and GDU-V-86, (2) naphthalene at GDU-B-119, (3) arsenic at GDU-B-47 and GDU-EX-06, and (4) mercury at GDU-B-46, GDU-EX-08, GDU-V-33, and GDU-V-43. Use of groundwater present within the unconsolidated sediments overlying the sandstone bedrock aquifer is prohibited between the source area and this relocated point of human exposure. The area where groundwater use is prohibited is shown in Exhibit B-4 of the ELUC.
3. The ELUC for SWMU 4 was filed with the Crawford County Recorder on July 23, 2002 as Document 2002-02833 for Parcel Index No. 05-1-34-000-021-000. This ELUC places the following restrictions on the property:
- a. Land use is restricted to industrial/commercial use under current "No Further Action" scenario.
 - b. If the refinery decides to either transfer the property comprising SWMU 4 (legally described in Exhibit A, Item 2 of the ELUC) to another party, or decides to designate the land use at the SWMU 4 as other than industrial scenario, it will first obtain concurrence from the Illinois EPA.
 - c. The facility will enter the above requirements into the operating record, and will implement provisions to assure that anyone who proposes to disturb the soil deeper than 10 ft-bgs beneath SWMU 4, or proposes to change its land usage, is aware of and addresses conditions in this section prior to any actions.
 - d. The deed restriction will prohibit the use of the till water (i.e. free water above the uppermost sandstone aquifer) as a potable water source.
 - e. If any hazardous constituents were present, they would be benzene, ethylbenzene, toluene, and xylene as described in reports of past investigations at the property.

- f. To prevent disturbance of the till-water no excavations will be conducted deeper than 10 ft-bgs within the area legally described in Exhibit A, Item 2 of the ELUC. However, if the facility determines that such an excavation is necessary, the Illinois EPA will be notified to obtain concurrence.
 - g. Excavations under the area delineated and legally described in Exhibit A, Item 2 and shown in Exhibit B-1 of the ELUC shall be conducted in a manner that is protective of human health including the use of PPE if deemed necessary, and applicable refinery safety plans and procedures. Any wastes or contaminated media generated will be appropriately characterized and managed.
 - h. Excavations will be conducted in accordance with the prevailing environmental regulations at that time. Prior to any future excavations deeper than 10 ft-bgs, a site safety plan addressing possible worker exposure will be developed.
- 4. The ELUC for AOC 16 within the MPC facility was filed with the Crawford County Clerk and Recorders Office on December 10, 2015 as Document 2015-03424 Pages 1-19. The PIN assigned to this parcel by the Crawford County Clerk and Recorders Office is 05-1-34-000-021-000.
 - a. The land use for AOC 16 is restricted to industrial/commercial property is shown in Exhibit B-1 of the ELUC. A surveyed, scaled map of AOC 16 is shown in Exhibit B-2 of the ELUC.
 - b. The point of human exposure for the soil-to-groundwater exposure was relocated from the release area to the Refinery's fence line, which is located at or within MPC's property boundary. The sample locations for which the point of human exposure was relocated are included within the groundwater restriction area. A surveyed, scaled map showing the lateral extent of the area where the use of groundwater as a potable water supply is prohibited is presented in Exhibit B-3 of the ELUC.
 - c. The two existing buildings (Oil Spill Control Building and Pump House Building) located within the footprint of AOC 16 shall remain unoccupied or shall include a building control technology consistent with 35 Ill. Admin. Code 742, Subpart L, if the building is modified to allow human occupancy. A surveyed, scaled map of AOC 16 showing the location of the Oil Spill Control Building and Pump House Building is shown in Exhibit B-2 of the ELUC.

- d. Any building planned within the footprint of AOC 16 shall not be approved for human occupancy or shall include a building control technology consistent with 35 Ill. Admin. Code 742, Subpart L, if the building is modified to allow human occupancy. A surveyed, scaled map of AOC 16 is shown in Exhibit B-2 of the ELUC.
5. Each of the ELUCs referred to above and contained in the approved RCRA Permit application shall apply in perpetuity to the facility and shall not be released until the Illinois EPA, upon written request from the property owner and in accordance with 35 Ill. Admin. Code 742.1010, determines that there is no longer a need for the ELUC and issues an amended certification of closure or a permit modification approving modification/elimination of the ELUC requirements and a release or modification of the ELUC is filed on the chain of title for the Property.
6. Failure to comply with the limitations or requirements of the ELUCs may result in avoidance of the Illinois EPA NFA determination in accordance with the program under which the determination was made. The failure to comply with the limitations or requirements of the ELUCs may also be grounds for enforcement action pursuant to Title VIII of the Act.
7. At no time shall this site be used in a manner inconsistent with the land use limitations established in the approved ELUCs, unless: (1) attainment of objectives appropriate for the new land use is achieved, and (2) a new NFA determination is obtained from the Illinois EPA and subsequently recorded in accordance with 35 Ill. Admin. Code 742.
 - a. Requests to release or modify an ELUC shall be formally requested in writing by the Permittee from the Illinois EPA as a: (1) request to amend the certification of closure; or (2) a permit modification request. Sufficient information shall be provided in these requests to demonstrate that the requested change meets all the requirements of 35 Ill. Admin. Code 742.
 - b. Any final approval by the Illinois EPA of a request to release or modify an ELUC shall be filed with the chain of title for the subject facility.

G. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

1. The approved cost estimate for completing corrective action for Category A, Category B SWMUs, AOCs and Phase III of MPCs PMP is \$757,400.00 (2017 dollars).

2. The Permittee shall demonstrate continuous compliance with 35 Ill. Admin. Code 724.201 by providing documentation of financial assurance using a mechanism specified in 35 Ill. Admin. Code 724.243, in at least the amount of the cost estimate required under Condition III. G.1. The words “completion of corrective action” shall be substituted for “closure and/or post-closure,” as appropriate in the financial instrument specified in 35 Ill. Admin. Code 724.251. The documentation shall be submitted to the Illinois EPA within sixty (60) days after the submittal of the initial or revised cost estimates required under Condition III.G.1. The Illinois EPA may accept financial assurance for completion of corrective action in combination with another financial mechanism acceptable under 35 Ill. Admin. Code 724.246 at its discretion.

H. REQUIREMENTS FOR ADDRESSING NEWLY-IDENTIFIED SWMU(s) or AOC(s)

1. The Permittee shall notify the Illinois EPA in writing of any newly-identified SWMU(s) or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:
 - a. The location of the newly-identified SWMU/AOC in relation to other SWMUs/AOCs on a scaled map or drawing;
 - b. The type of unit and the unit’s past and present function;
 - c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);
 - d. The period during which the unit was operated;
 - e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU/AOC, to the extent available; and
 - f. The results of any relevant available sampling and analysis that may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.
2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU/AOC, the Illinois EPA may request in writing, that the Permittee prepare a SWMU/AOC Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s)/AOC(s) discovered subsequent to the

issuance of this permit. This SWMU/AOC Assessment Plan shall also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU/AOC. The SWMU/AOC Assessment Plan shall demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and shall include parameters sufficient to determine the nature and extent of hazardous waste or hazardous constituents potentially released from the newly-discovered SWMU(s)/AOC(s) to the environment. Additional guidance regarding the contents of this plan will be provided along with the written request for submittal of a SWMU/AOC Assessment Plan.

3. Within sixty (60) calendar days after receipt of the Illinois EPA's request for a SWMU/AOC Assessment Plan, the Permittee shall submit a SWMU/AOC Assessment Plan.
4. After the Permittee submits the SWMU/AOC Assessment Plan, the Illinois EPA shall either, approve with conditions or disapprove the Plan in writing. If the Plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Illinois EPA shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised Plan.
5. The Permittee shall submit a SWMU/AOC Assessment Report documenting the results of sampling and/or other activities conducted in accordance with the approved SWMU/AOC Assessment Plan to the Illinois EPA in accordance with the schedule in the approved SWMU/AOC Assessment Plan. The SWMU/AOC Assessment Report shall describe all results obtained from the implementation of the approved SWMU/AOC Assessment Plan.
6. The Permittee shall implement a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time the Illinois EPA notifies the Permittee of the need for such a program.
7. All workplans submitted to the Illinois EPA shall contain a detailed estimate of the cost of the efforts needed to carry out the proposed activities; this estimate shall be developed in accordance with Condition III G.1 above. Once these cost estimates are approved, appropriate financial assurance shall be established in accordance with Condition III.G.2 above.
8. Overall efforts for these activities shall meet the requirements of 35 Ill. Admin. Code 724.201 and 742.

I. FUTURE RELEASES FROM SWMUs/AOCs

There exists a potential that a release may occur in the future from SWMUs/AOCs identified in the original RFA and the subsequent refinery survey in 2002 that did not require any corrective action at the time that the RFA, RFI, or survey was completed. If the Permittee discovers that a release has occurred from such a SWMU/AOC in the future, then Illinois EPA shall be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition III.H.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU/AOC shall be carried out in accordance with the procedure set forth in Condition III.H above, including the requirements for cost estimates and financial assurance. The results of all corrective action efforts required by this condition shall meet the requirements of 35 Ill. Admin. Code 724.201.

J. COMPLETION OF CORRECTIVE MEASURES

- I. The Permittee shall complete those corrective action efforts required by this section. The Permittee may request the Illinois EPA to consider corrective action complete at any point in time during the corrective action process for any or all units being addressed. The request must include a demonstration of the following:
 - a. That there have been no releases of hazardous waste or hazardous constituents to any media from the SWMUs/AOCs; or
 - b. That all releases are below the Release Criteria (initial remediation objectives); or
 - c. That all releases of hazardous waste or hazardous constituents to all media targeted within the RFI for investigation have been cleaned up to the remediation objectives specified within the approved Phase I Corrective Measures Plan (CMP) Report or an interim measures plan, and shall also describe how releases will be prevented in the future; or
 - d. That, through the use of an Illinois EPA approved risk assessment (e.g. TACO), the corrective action is successful in protecting human health and the environment; or
 - e. Some combination of the above demonstrations.

Appropriate documentation and certification shall accompany such a demonstration.

The Permittee shall be notified in writing if the Illinois EPA approves the request that the corrective actions can be considered complete. The notification from the Illinois EPA to the Permittee may include a release from the financial requirements of Condition III.G above. This action shall be subject to the appeal provisions set forth in Section 39(a) and 40(a) of the Illinois Environmental Protection Act.

2. A determination of NFA shall not preclude the Illinois EPA from requiring continued or periodic inspections of the SWMU(s)/AOC(s) or continued or periodic monitoring of the specified environmental media when site-specific circumstances indicate that releases of hazardous wastes including hazardous constituents are likely to occur, if necessary to protect human health and the environment. Any requirement for long-term groundwater monitoring will only be required at a SWMU/AOC where substantial soil contamination exists (as determined by the Illinois EPA) or at any SWMU/AOC that would meet the definition of a land disposal unit. Any such requirement will be subject to the appeal provisions of Section 39(a) and 40(a) of the Illinois Environmental Protection Act.
3. A determination of NFA shall not preclude the Illinois EPA from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU/AOC at the facility that is likely to pose a threat to human health or the environment. In such a case, the Illinois EPA shall initiate a Permit modification to rescind the determination of NFA.

K. INTERIM MEASURES

At any time during the RFI, the Permittee may initiate interim measures and/or voluntary corrective actions for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It may not be necessary to conduct all phases of the RFI investigation if the Illinois EPA and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal CMP.

1. Prior to implementing any interim measures, the Permittee shall submit detailed information regarding the proposed interim measures to the Illinois EPA for approval. This information shall include, at a minimum:

- a. Background information about the unit and surrounding areas;
 - b. Objectives of the interim measures: how the measure is preventing and mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
 - c. Design, construction, operation, monitoring, and maintenance requirements, if applicable;
 - d. Information regarding the design, construction, operation and maintenance of the measure;
 - e. Schedules for design and construction and operation, if applicable; and
 - f. Schedules for progress reports.
2. If the Illinois EPA determines that a release cannot be addressed without additional study and/or a formal CMP, then the Illinois EPA will notify the Permittee that these shall be performed. Any proposal made under this provision or any other activity resulting from such proposal, including the invocation of dispute resolution, shall not affect the schedule for implementation of the RFI or of any other portion of the permit.
 3. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment the Permittee will be notified by way of a permit modification.

L. REQUIREMENTS ASSOCIATED WITH THE WEST SURFACE IMPOUNDMENT

1. The West Surface Impoundment (SWMU 6A) has been remediated to the satisfaction of Illinois EPA and USEPA. The Permittee may continue to use this impoundment to store the following types of water used/generated at the refinery:
 - a. Water from the refinery's water wells and from York Pond;
 - b. Non-contact cooling water;
 - c. Treated water from the refinery's wastewater treatment system.
 - d. Uncontaminated stormwater from non-process portions of the refinery and clean hydrostatic test water stored in the East Surface Impoundment.

In general, the water present in the West Surface Impoundment provides the water levels necessary for the effective operation of the facility's fire water system. However, the water placed in the impoundment may also be used for other purposes.

2. The West Surface Impoundment, or portions thereof, may be filled in by the Permittee, as desired, with uncontaminated soil.

SECTION V: SPECIAL CONDITIONS

A. SUMMARY

Five (5) hazardous waste surface impoundments were once present at this facility. Each of these impoundments have been properly closed in accordance with plans approved by Illinois EPA or USEPA. A brief overview of these impoundments and their closure is as follows:

1. Three hazardous waste surface impoundments once present at the facility (referred to as the Oily Sludge Pit, the DAF Skimmings Pit, and the Bulk Waste Pit) were included in the original RCRA permit issued to the subject facility on September 30, 1988. These units are located near each other and collectively comprise "SWMU 3." These units were closed in accordance with plans approved by the Illinois EPA and on November 26, 2001, Illinois EPA determined that they had been "clean closed" in accordance with the provisions of 35 Ill. Admin. Code 742. This determination was based in part upon an established ELUC that placed certain restrictions on future activities at the facility. Specifically, this ELUC, filed with the Crawford County Clerk and Recorder's Office on July 19, 2001 as Document No. 2001-02852, placed the following restrictions on the facility:
 - a. The facility must leave in place the current impermeable barrier (e.g., existing liners) overlying the soils below the surface impoundments shown in Attachment B of the ELUC;
 - b. The area legally described in Exhibit A, Item 2 and shown in Exhibit B-1 of the ELUC is restricted to industrial/commercial uses;
 - c. The three above-referenced surface impoundments, if used to manage wastes in the future, are restricted to storage of non-hazardous wastes;
 - d. Excavation below an elevation of 508 ft (MSL) under the area delineated and legally described in Exhibit A of the ELUC must be conducted in a manner that is protective of human health including, but not limited to, the use of personal protective equipment if deemed necessary, and applicable refinery safety plans and procedures;
 - e. Excavation must be conducted in accordance with the prevailing environmental regulations at that time;

- f. Prior to any future excavations or construction, at these impoundments, a site safety plan addressing possible worker exposure must be developed; and
- g. Any soil removed from the area legally described in Exhibit A, Item 2 and shown in Exhibit B-1 of the ELUC must be managed as a special waste in accordance with 35 Ill. Admin. Code, Subtitle G: Waste Disposal.

This ELUC shall apply in perpetuity against the Property and shall not be released until the Illinois EPA determines that there is no longer a need for this ELUC as an institutional control; until the Illinois EPA, upon written request and in accordance with 35 Ill. Admin. Code 742.1010(c)(2)(B), issues an amended certification of closure or a permit and/or permit modification approving modification or removal of the limitation(s) or requirement(s); and until a release or modification of the land use limitation or requirement is filed on the chain of title for the Property.

- 2. Two (2) surface impoundments once present at the facility (referred to as the "Aeration Surge Pond and the "Activated Sludge Pond") that were physically one impoundment (collectively as the Aeration Surge/Activated Sludge Basin or AS/AS Basin) were identified as SWMU 5 in the USEPA portion of the original RCRA permit issued to this facility on September 30, 1988. These units were re-classified as interim status hazardous waste surface impoundments in 1991 when the TCLP test replaced the EP Toxicity Test for determining the characteristic of toxicity of hazardous wastes and the list of contaminants of concern for these characteristics was expanded to include, among other contaminants, benzene.
 - a. USEPA approved an interim status closure plan for these units on January 25, 1993.
 - b. USEPA determined that NFA was necessary to close these units on March 2, 1995.
- 3. The use of any of the above-referenced S04 units in conjunction with the Waste Water Treatment Plant will require a permit in accordance with 35 Ill. Admin. Code, Subtitle C: Water Pollution.

B. REQUIRED FORMS

- 1. The permittee shall provide a completed Illinois EPA permit application form LPC-PA23 with all additional information, permit modifications, and permit applications that are submitted to the Illinois EPA.

2. The permittee is required to complete and provide the following 39(i) Certification forms to the Illinois EPA:
 - a. A 39(i) (legal entity) certification form must be filled out for the legal entity (i.e. Company) that appears on the permit application being submitted, and
 - b. A 39(i) (individual) form must be filled out for the individual that signs the 39i (legal entity) certification form, and
 - c. A 39(i) (individual) form must be filled out for each individual who signs the permit application.

Note: If the applicant wants additional staff to be able to send in future modifications, certifications, etc., those individuals must also submit individual 39(i) certification forms.

C. COMPLIANCE SCHEDULE

1. The permittee shall submit the necessary 39(i) certification form(s) and supporting documentation within thirty (30) days of any of the following events:
 - a. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has violated federal, state, or local laws, regulations, standards, or ordinances in the operation of waste management facilities or sites; or
 - b. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has been convicted in this or another State of any crime that is a felony under the laws of this state, or convicted of a felony in a federal court; or
 - c. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has committed an act of gross carelessness or incompetence in handling, storing, processing, transporting, or disposing of waste.
 - d. A new person is associated with the owner or operator who can sign the permit application or who has control over operating decisions regarding the facility, such as a corporate officer or a delegated employee.

The 39(i) certification must describe the violations, convictions, carelessness, or incompetence as outlined in a, b, or c above and must include the date that a new person as described in d above began employment with the applicant.

The 39(i) certification form and supporting documentation shall be submitted to the address specified below:

Illinois Environmental Protection Agency
Bureau of Land #33 — 39(i) Certification
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

The 39(i) certification forms will be treated as confidential by the Illinois EPA. The applicant may also request the information on the 39(i)-certification form be maintained confidential in accordance with 2 Ill. Admin. Code 1828.

SECTION VI: POST-CLOSURE CARE AND MONITORING FOR THE EAST LTF

A. SUMMARY

MPC will be required to conduct post-closure care and monitoring of its East LTF until the level of hazardous constituents in the treatment zone soil reaches the background level or for at least thirty (30) years, whichever is less. Financial assurance for post-closure must be maintained until the Illinois EPA has released the Permittee from further post-closure requirements.

B. UNIT IDENTIFICATION

The Permittee shall provide post-closure care for the East LTF in accordance with Conditions C through F below.

C. MONITORING, MAINTENANCE AND RECORDKEEPING

1. The Permittee shall provide an amended Post-Closure Plan for the East LTF, if necessary, at the same time it submits the closure notification required by Condition II.J.1.
2. The Illinois EPA may include restrictions upon the future use of units subject to post-closure care requirements if necessary to protect public health and the environment, including permanent prohibition of the use of the units for purposes that may create an unreasonable risk of injury to human health or the environment. The Illinois EPA shall file such restrictions of record in the Office of the Recorder of the county in which the hazardous waste disposal site is located. The Illinois EPA will provide the Permittee with a reasonable opportunity to review these restrictions prior to their filing.
3. The Permittee shall implement the Approved Post-Closure Plan for the East LTF contained in the Approved Permit Application. All post-closure care activities must be conducted in accordance with the provisions of the Approved Post-Closure Plan.
4. The Permittee must request a permit modification to authorize any change in the Approved Post-Closure Plan. This request must be in accordance with applicable requirements of 35 Ill. Admin. Code, 702, 703 and 724, and must include a copy of the amended Post-Closure Plan for approval by the Illinois EPA.

5. The Illinois EPA may require, at partial and final closure, continuation of any of the security requirements during part or all of the post-closure period.
6. The Permittee shall maintain and monitor the groundwater monitoring system and comply with the other applicable regulations of 35 Ill. Admin. Code 724, Subpart F (Releases from Solid Waste Management Units) during the post-closure period.
7. The Permittee shall maintain the integrity and effectiveness of the final cover, including making repairs to the cap, if applicable, to correct the effects of settling, subsidence, erosion and other events.
8. The Permittee shall prevent run-on and run-off from eroding or otherwise damaging the final cover.

D. POST-CLOSURE REQUIREMENTS FOR THE EAST LAND TREATMENT FACILITY

1. The Permittee shall conduct and maintain financial assurance for post-closure care and monitoring of its East LTF until either of the following two requirements are met.
 - a. Post-closure care and monitoring has been conducted for at least thirty (30) years in accordance with the permit; or
 - b. The level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using a statistical test that meets the requirements of Condition D.5 below and an amended Post Closure Plan, demonstrating this evaluation, has been submitted to the Illinois EPA.
2. The Permittee shall maintain financial assurance for post-closure until the Illinois EPA has released the Permittee from further post-closure requirements.
3. For a period of at least thirty (30) years, or until the Illinois EPA has authorized discontinuance under the provision of Condition D.4 below, the Permittee shall continue all operations necessary to enhance degradation and transformation of trace organics and to maintain the immobilization of inorganic hazardous constituents within the treatment zone except as such operations may damage or interfere with the vegetative cover. During the post-closure period, the following requirements shall also be met.

- a. The Permittee shall maintain vegetative cover over the entire area of closed East LTF.
 - b. The Permittee shall maintain the run-off and run-on control systems in accordance with Conditions II.C.2 – II.C.5.
 - c. The Permittee shall control wind dispersal of hazardous constituents, as necessary, in accordance with Condition II.C.6, except as may damage or interfere with maintenance of the vegetative cover.
 - d. The Permittee shall continue soil core monitoring and the statistical comparison determination in accordance with Condition D.5 below. Soil pore liquid monitoring may be terminated ninety (90) days after the last application of waste to the treatment zone.
4. After two (2) years of soil core monitoring, the Permittee may submit a Class 2 permit modification request to the Illinois EPA to amend the monitoring schedule to reduce the sampling frequency. The petition shall include a migration analysis of monitoring parameters within the treatment zone during the post-closure period.
5. In making the statistical comparison for the purposes of reducing the post-closure period, as described in Condition D.1.b above, the Permittee shall compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The Permittee shall use a statistical procedure that:
- a. Is appropriate for the distribution of data used to establish background values; and
 - b. Provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify actual presence in the treatment zone.

E. INSPECTIONS

The Permittee shall inspect the components, structures and equipment at the site in accordance with the inspection schedule provided in Table I.2-3 of the Approved Permit Application.

F. NOTICES AND CERTIFICATION

1. After final closure, has been certified, the person or office specified in the Approved Post-Closure Plans must keep the plan on file during the remainder of the post-closure period.
2. If the Permittee or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, then he must request a modification to this permit in accordance with the applicable requirements in 35 Ill. Admin. Code 703, 705 and 724. The owner or operator must at a minimum demonstrate that the removal of hazardous wastes will satisfy the criteria of 35 Ill. Admin. Code 724.217(c).
3. No later than sixty (60) days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee shall submit to the Illinois EPA, by registered mail, a certification that the post-closure care for the hazardous waste disposal unit was performed in accordance with the specifications in the Approved Post-Closure Plan. The certification must be signed by the owner or operator and a qualified, registered professional engineer. Documentation supporting the qualified, registered professional engineer's certification must be furnished to the Illinois EPA. In addition, when the certification of completion of post-closure care is submitted to Illinois EPA, a report must be included, which contains the following:
 - a. A site location map.
 - b. A site layout map.
 - c. Scaled drawing showing the horizontal and vertical boundaries of the unit that received post-closure care, including the surface contours of the unit.
 - d. A brief discussion of the operations at the facility, the unit that received post-closure care, the types of wastes managed in the unit that received post-closure care and the activities carried out in providing post-closure care of the subject unit.
 - e. Identification of when each required report (typically submitted on a quarterly, semi-annual or annual basis) was submitted to Illinois EPA that contained a summary of the post-closure activities carried out during the time period covered by the report.

- f. A year by year discussion of the results of the inspections conducted at the subject unit and any maintenance activities carried out during the year.
- g. Photographs and drawings depicting the current conditions of the unit that received post-closure care. Of special concern are run-on and run-off management features and the health of the vegetative cover associated with the subject unit.
- h. A year by year summary of the sampling/analysis efforts associated with monitoring the soils, vadose zone and groundwater as required by the facility's RCRA permit. Drawings must also be provided identifying the location where these samples were located.
- i. An evaluation of the information summarized in accordance with Condition F.3.h above. Of special concern is whether this information indicates that the requirements set forth for the quality of the soil, groundwater and the vadose zone have been met for the unit.
- j. Final conclusions and recommendations regarding the status of the unit for which post-closure care as described in this report was provided.

G. SUBSURFACE GAS MANAGEMENT

The Permittee shall submit a corrective action plan for approval to the Illinois EPA if subsurface gas problems are detected in any unit that has been closed as a landfill. Following approval of a plan by the Illinois EPA, the plan shall be implemented by the Permittee.

SECTION VI-A: POST-CLOSURE CARE AND MONITORING FOR THE WEST
LTF CAMU

A. SUMMARY

MPC will be required to conduct post-closure care and monitoring of its CAMU for at least thirty (30) years or until the level of hazardous constituents in the CAMU soils reaches the background level, whichever is less. Financial assurance for post-closure must be maintained until the Illinois EPA has released the Permittee from further post-closure requirements.

B. UNIT IDENTIFICATION

The Permittee shall provide post-closure care for the CAMU in accordance with Conditions C through F below.

C. MONITORING, MAINTENANCE, AND RECORDKEEPING

1. The Permittee shall provide an amended Post-Closure Care Plan for the CAMU, if necessary, at the same time it submits the closure notification required by Condition II-A.H.1.
2. The Illinois EPA may include restrictions upon the future use of the CAMU area requirements if necessary, to protect public health and the environment, including permanent prohibition of the use of the unit for proposes that may create an unreasonable risk of injury to human health or the environment. The Illinois EPA shall file such restrictions of record in the Crawford County Recorder's Office. The Illinois EPA will provide the Permittee with a reasonable opportunity to review these restrictions prior to their filing.
3. The Permittee shall implement the Approved Post-Closure Care Plan for the CAMU contained in the Approved Permit Application. All post- closure care activities must be conducted in accordance with the provisions of the Approved Post-Closure Care Plan.
4. The Permittee must request a permit modification to authorize any change in the Approved Post-Closure Care Plan. This request must be in accordance with applicable requirements of 35 Ill. Admin. Code, 702, 703, and 724, and must include a copy of the amended Post-Closure Care Plan for approval by the Illinois EPA.

5. The Illinois EPA may require, at partial and final closure, continuation of any of the security requirements during part or all of the post-closure care period.
6. The Permittee shall maintain and monitor the groundwater monitoring system and comply with the other applicable regulations of 35 Ill. Admin. Code 724, Subpart F (Releases from Solid Waste Management Units) during the post-closure care period.
7. The Permittee shall maintain the integrity and effectiveness of the final cover, including making repairs to the cap, if applicable, to correct the effects of settling, subsidence, erosion, and other events.
8. The Permittee shall prevent run-on and run-off from eroding or otherwise damaging the final cover.

D. POST-CLOSURE CARE REQUIREMENTS FOR THE CORRECTIVE ACTION
MANAGEMENT UNIT

1. The Permittee shall conduct and maintain financial assurance for post-closure care and monitoring of its CAMU until either of the following two requirements are met.
 - a. Post-closure care and monitoring has been conducted for at least thirty (30) years in accordance with the permit; or
 - b. The levels of hazardous constituents in CAMU soils do not exceed the background values of those constituents by an amount that is statistically significant when using a statistical test that meets the requirements of Condition D.5 below and an amended Post Closure Plan, demonstrating this evaluation, has been submitted to the Illinois EPA.
2. The Permittee shall maintain financial assurance for post-closure until the Illinois EPA has released the Permittee from further post-closure requirements.
3. For a period of at least thirty (30) years, or until the Illinois EPA has authorized discontinuance under the provisions of Condition D.4 below, the Permittee shall continue all operations necessary to enhance degradation and transformation of trace organics and to maintain the immobilization of inorganic hazardous constituents within the CAMU except such operations that may damage or interfere with the vegetative cover. During the post-closure period, the following requirements shall also be met.

- a. The Permittee shall maintain vegetative cover over the entire area of the closed CAMU.
 - b. The Permittee shall maintain the run-off and run-on control systems in accordance with Conditions II-A.C.2 – II-A.C.5.
 - c. The Permittee shall control wind dispersal of hazardous constituents, as necessary, in accordance with Condition II-A.C.7, except as may damage or interfere with maintenance of the vegetative cover.
 - d. The Permittee shall continue soil core monitoring and the statistical comparison determination in accordance with Condition D.5 below. Soil pore liquid monitoring may be terminated ninety (90) days after the last application of waste to the treatment zone.
4. After two (2) years of soil core monitoring, the Permittee may submit a Class 2 permit modification request to the Illinois EPA to amend the monitoring schedule to reduce sampling frequency. The petition shall include a migration analysis of monitoring parameters within the treatment zone during the post- closure care period.
 5. In making the statistical comparison for the purposes of reducing the post-closure care period, as described in Condition D.1.b above, the Permittee shall compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The Permittee shall use a statistical procedure that:
 - a. Is appropriate for the distribution of data used to establish background values; and
 - b. Provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify actual presence in the treatment zone.

E. INSPECTIONS

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the inspection schedule provided in Table I.2-3 of the Approved Permit Application.

F. NOTICES AND CERTIFICATION

1. After final closure has been certified, the person or office specified in the Approved Post-Closure Care Plans must maintain the plan on file during the remainder of the post-closure care period.
2. If the Permittee or any subsequent owner or operator of the land upon which the corrective action management unit is located wishes to remove waste or waste residues, the protective cover, or contaminated soils, then the Permittee must request a modification to this permit in accordance with the applicable requirements in 35 Ill. Admin. Code 703, 705, and 724. The owner or operator must at a minimum demonstrate that the removal of the waste will satisfy the criteria of 35 Ill. Admin. Code 724.217(c).
3. No later than sixty (60) days after completion of the established post-closure care period for the CAMU, the Permittee shall submit to the Illinois EPA, by registered mail, a certification that the post-closure care for the unit was performed in accordance with the specifications in the Approved Post-Closure Plan. The certification must be signed by the owner or operator and a qualified, registered professional engineer. Documentation supporting the qualified, registered professional engineer's certification must be furnished to the Illinois EPA. In addition, when the certification of completion of post-closure care is submitted to Illinois EPA, a report must be included that contains the following:
 - a. A site location map;
 - b. A site layout map;
 - c. Scaled drawing showing the horizontal and vertical boundaries of the unit that received post-closure care, including the surface contours of the unit;
 - d. A brief discussion of the operations at the facility, the unit that received post-closure care, the types of wastes managed in the unit that received post-closure care and the activities carried out in providing post-closure care of the subject unit;
 - e. Identification of when each required report (typically submitted on a quarterly, semi-annual or annual basis) was submitted to Illinois EPA that contained a summary of the post-closure activities carried out during the time period covered by the report;
 - f. A year by year discussion of the results of the inspections conducted at the

subject unit and any maintenance activities carried out during the year;

- g. Photographs and drawings depicting the current conditions of the unit that received post-closure care. Of special concern are run-on and run-off management features and the health of the vegetative cover associated with the subject unit;
- h. A year by year summary of the sampling/analysis efforts associated with monitoring the soils, vadose zone and groundwater as required by the facility's RCRA permit. Drawings must also be provided identifying the location where these samples were located;
- i. An evaluation of the information summarized in accordance with Condition F.3.h above. Of special concern is whether this information indicates that the requirements set forth for the quality of the soil, groundwater and the vadose zone have been met for the unit; and
- j. Final conclusions and recommendations regarding the status of the unit for which post-closure care as described in this report was provided.

G. SUBSURFACE GAS MANAGEMENT

The Permittee shall submit a corrective action plan for approval to the Illinois EPA if subsurface gas problems are detected in any unit that has been closed as a landfill. Following approval of a plan by the Illinois EPA, the plan shall be implemented by the Permittee.

SECTION VII: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. **EFFECT OF PERMIT.** The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or 35 Ill. Admin. Code, Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 Ill. Admin. Code 702.181)
2. **PERMIT ACTIONS.** This permit may be modified, reissued or revoked for cause as specified in 35 Ill. Admin. Code 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. (35 Ill. Admin. Code 702.146)
3. **SEVERABILITY.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 Ill. Admin. Code 700.107)
4. **PERMIT CONDITION CONFLICT.** In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 Ill. Admin. Code 702.160)
5. **DUTY TO COMPLY.** The Permittee shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 Ill. Admin. Code 702.141 and 703.242)
6. **DUTY TO REAPPLY.** If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 Ill. Admin. Code 702.142 and 703.125)
7. **PERMIT EXPIRATION.** This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete

application (see 35 Ill. Admin. Code 703.181-703.209) and through no fault of the Permittee the Illinois EPA has not issued a new permit as set forth in 35 Ill. Admin. Code 702.125.

8. **NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE.** It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 Ill. Admin. Code 702.143)
9. **DUTY TO MITIGATE.** In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. (35 Ill. Admin. Code 702.144)
10. **PROPER OPERATION AND MAINTENANCE.** The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 Ill. Admin. Code 702.145)
11. **DUTY TO PROVIDE INFORMATION.** The Permittee shall furnish to the Illinois EPA, within a reasonable time, any relevant information that the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Illinois EPA, upon request, copies of records required to be kept by this permit. (35 Ill. Admin. Code 702.148)
12. **INSPECTION AND ENTRY.** The Permittee shall allow an authorized representative of the Illinois EPA, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location. (35 Ill. Admin. Code 702.149)

13. MONITORING AND RECORDS. (35 Ill. Admin. Code 702.150)

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 Ill. Admin. Code 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.
- c. Records of monitoring information shall include:
 - 1) The date(s), exact place, and time of sampling or measurements;
 - 2) The individual(s) who performed the sampling or measurements;
 - 3) The date(s) analyses were performed;
 - 4) The individual(s) who performed the analyses;
 - 5) The analytical technique(s) or method(s) used; and

- 6) The result(s) of such analyses. (35 Ill. Admin. Code 702.150)
14. **REPORTING PLANNED CHANGES.** The permittee shall give written notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. In general, proposed changes to the facility will need to be submitted to the Illinois EPA as permit modification request that complies with the requirements of 35 Ill. Admin. Code 703.280. (35 Ill. Admin. Codes 702.152(a))
15. **CONSTRUCTION CERTIFICATION.** For a new hazardous waste management facility, the permittee shall not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:
- a. The permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
 - 1) The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or
 - 2) If, within fifteen (15) days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste. (35 Ill. Admin. Code 703.247)
16. **ANTICIPATED NONCOMPLIANCE.** The Permittee shall give advanced written notice to the Illinois EPA of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements, regulations, or the Act. (35 Ill. Admin. Code 702.152(b))
17. **TRANSFER OF PERMITS.** This permit may not be transferred by the permittee to a new owner or operator unless the permit has been modified or reissued pursuant to 35 Ill. Admin. Code 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Illinois EPA. The new owner or operator shall submit a revised permit application no later than ninety (90) days prior to the scheduled change. (35 Ill. Admin. Code 703.260)
18. **MONITORING REPORTS.** Monitoring results shall be reported at the intervals specified in the permit. (35 Ill. Admin. Code 702.152(d))

19. **COMPLIANCE SCHEDULES.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 Ill. Admin. Code 702.162. (35 Ill. Admin. Code 702.152(e))
20. **TWENTY-FOUR HOUR REPORTING.**
 - a. The Permittee shall report to the Illinois EPA any noncompliance with the permit that may endanger human health or the environment. Any such information shall be reported orally within twenty-four (24) hours from the time the Permittee becomes aware of the following circumstances:
 - 1) Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.
 - 2) Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
 - b. The oral report shall include a description of the occurrence as described in Section VII.20.a and its cause and shall include the following information:
 - 1) Name, address, and telephone number of the owner or operator;
 - 2) Name, address, and telephone number of the facility;
 - 3) Date, time, and type of incident;
 - 4) Name and quantity of material(s) involved;
 - 5) The extent of injuries, if any;
 - 6) An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
 - 7) Estimated quantity and disposition of recovered material that resulted from the incident.
 - c. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of

noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days. (35 Ill. Admin. Code 702.152(f) and 703.245(b))

21. **OTHER NONCOMPLIANCE.** The Permittee shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 14, 15, 16 and 20, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 20. (35 Ill. Admin. Code 702.152(g))
22. **OTHER INFORMATION.** Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 Ill. Admin. Code 702.152(h))
23. **REPORTING REQUIREMENTS.** The following reports required by 35 Ill. Admin. Code 724 shall be submitted in addition to those required by 35 Ill. Admin. Code 702.152 (reporting requirements):
 - a. **Manifest discrepancy report:** if a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within fifteen (15) days after receiving the waste, the permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Admin. Code 724.172(b))
 - b. **Unmanifested waste report:** The permittee must submit to the Illinois EPA within fifteen (15) days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 Ill. Admin. Code 724.176)
 - c. **Annual report:** an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Admin. Code 724.175)
24. **SUBMITTAL OF REPORTS OR OTHER INFORMATION.** All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

Illinois Environmental Protection Agency
Bureau of Land
Permit Section — #33
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

25. **SIGNATORY REQUIREMENT.** All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 Ill. Admin. Code 702.126. (35 Ill. Admin. Code 702.151)
26. **CONFIDENTIAL INFORMATION.** Any claim of confidentiality must be asserted in accordance with 35 Ill. Admin. Code 702.103 and 35 Ill. Admin. Code 161.
27. **DOCUMENTS TO BE MAINTAINED AT FACILITY SITE.** The Permittee shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:
 - a. Waste analysis plan as required by 35 Ill. Admin. Code 724.113(b) and this permit.
 - b. Personnel training documents and records as required by 35 Ill. Admin. Code 724.116(d) and this permit.
 - c. Contingency plan as required by 35 Ill. Admin. Code 724.153(a) and this permit.
 - d. Closure plan as required by 35 Ill. Admin. Code 724.212(a) and this permit.
 - e. Cost estimate for facility closure as required by 35 Ill. Admin. Code 724.242(d) and this permit.
 - f. Operating record as required by 35 Ill. Admin. Code 724.173 and this permit.
 - g. Inspection schedules as required by 35 Ill. Admin. Code 724.115(b) and this permit.
28. **WASTE MINIMIZATION.** The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee that minimizes the present and future threat to

human health and the environment, in accordance with 35 Ill. Admin. Code 724.173(b)(9).

GENERAL FACILITY STANDARDS

29. **NOTICE OF WASTE FROM A FOREIGN SOURCE.** The permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 Ill. Admin. Code 724.112(a))
30. **NOTICE OF WASTE FROM OFF-SITE.** The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 Ill. Admin. Code 724.112(b))
31. **GENERAL WASTE ANALYSIS.** The Permittee shall comply with the procedures described in the approved waste analysis plan. (35 Ill. Admin. Code 724.113)
32. **SECURITY.** The Permittee shall comply with the security provisions of 35 Ill. Admin. Code 724.114(b) and (c).
33. **GENERAL INSPECTION REQUIREMENTS.** The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Admin. Code 724.115(c). Records of inspections shall be kept as required by 35 Ill. Admin. Code 724.115(d).
34. **PERSONNEL TRAINING.** The Permittee shall conduct personnel training as required by 35 Ill. Admin. Code 724.116 and shall maintain training documents and records as required by 35 Ill. Admin. Code 724.116(d) and (e).
35. **GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE.** The Permittee shall comply with the requirements of 35 Ill. Admin. Code 724.117.

PREPAREDNESS AND PREVENTION

36. **DESIGN AND OPERATION OF FACILITY.** The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. (35 Ill. Admin. Code 724.131)

37. **REQUIRED EQUIPMENT.** The Permittee shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Admin. Code 724.132.
38. **TESTING AND MAINTENANCE OF EQUIPMENT.** The Permittee shall test and maintain the equipment specified in the contingency plan and this permit as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Admin. Code 724.133)
39. **ACCESS TO COMMUNICATIONS OR ALARM SYSTEM.** The Permittee shall maintain access to the communications or alarm system as required by 35 Ill. Admin. Code 724.134.
40. **REQUIRED AISLE SPACE.** The Permittee shall maintain aisle space as required by 35 Ill. Admin. Code 724.135 and National Fire Protection Association (NFPA) requirements.
41. **ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS.** The Permittee shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Admin. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

CONTINGENCY PLAN

42. **IMPLEMENTATION OF PLAN.** The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment (35 Ill. Admin. Code 724.151(b)). At a minimum, this includes any fire or explosion that occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 Ill. Admin. Code 703.241). Within fifteen (15) days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 Ill. Admin. Code 724.156(j).
43. **COPIES OF PLAN.** A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Admin. Code 724.153.
44. **AMENDMENTS TO PLAN.** The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 35 Ill. Admin. Code 724.154.

45. **EMERGENCY COORDINATOR.** A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 Ill. Admin. Code 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

46. **MANIFEST SYSTEM.** The Permittee shall comply with the manifest requirements of 35 Ill. Admin. Code 724.171, 724.172 and 724.176.
47. **OPERATING RECORD.** The Permittee shall maintain a written operating record at the facility in accordance with 35 Ill. Admin. Code 724.173.
48. **ANNUAL REPORT.** The Permittee shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 Ill. Admin. Code 724.175.

CLOSURE

49. **PERFORMANCE STANDARD.** The Permittee shall close the facility as required by 35 Ill. Admin. Code 724.211 and in accordance with the approved closure plan developed in accordance with 35 Ill. Admin. Code 724.212.
50. **AMENDMENT TO CLOSURE PLAN.** The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 Ill. Admin. Code 724.212(c).
51. **NOTIFICATION OF CLOSURE.** The Permittee shall notify the Illinois EPA at least sixty (60) days prior to the date it expects to begin closure. (35 Ill. Admin. Code 724.212(d))
52. **TIME ALLOWED FOR CLOSURE.** After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 Ill. Admin. Code 724.213)
53. **DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT.** When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 Ill. Admin. Code 724.214) plan.

54. **CERTIFICATION OF CLOSURE.** When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 Ill. Admin. Code 724.215 that the facility has been closed as specified by the approved closure plans.
55. **COST ESTIMATE FOR FACILITY CLOSURE.** The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Admin. Code 724.242, must be:
- a. Adjusted for inflation sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 724.243. However, if the owner/operator is using the financial test or corporate guarantee, it must be updated for inflation within ninety (90) days after close of the firm's fiscal year, and before the submission of updated information to the Illinois EPA as specified in Section 724.243(f).
 - b. Revised no later than thirty (30) days after the Illinois EPA has approved a request to modify the closure plan, if the change in the closure plan increases the cost of closure.
 - c. Kept on record at the facility and updated. (35 Ill. Admin. Code 724.242)
 - d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.
56. **FINANCIAL ASSURANCE FOR FACILITY CLOSURE.** The Permittee shall demonstrate compliance with 35 Ill. Admin. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Admin. Code 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Admin. Code 724.243.

Financial assurance documents submitted to Illinois EPA should be directed to the following address:

Illinois Environmental Protection Agency
Bureau of Land #24
Financial Assurance Program
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

57. **LIABILITY REQUIREMENTS.** The Permittee shall demonstrate continuous compliance with the requirements of 35 Ill. Admin. Code 724.247 and the documentation requirements of 35 Ill. Admin. Code 724.251.
58. **INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.** The Permittee shall comply with 35 Ill. Admin. Code 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

59. **DISPOSAL PROHIBITION.** Any waste identified in 35 Ill. Admin. Code 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Admin. Code 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.
60. **DILUTION PROHIBITION.** The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Admin. Code 728, Subpart D (35 Ill. Admin. Code 728.103).
61. **WASTE ANALYSIS.**
 - a. The Permittee must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.
 - b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR 268, to assure that the treatment residues or extract meet the applicable treatment standard.
 - c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 Ill. Admin. Code 728.107 and 728.150(a)(1).

62. STORAGE RESTRICTIONS

- a. The Permittee shall not store hazardous wastes restricted from land disposal under 35 Ill. Admin. Code 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 Ill. Admin. Code 728.150.
- b. The Permittee must comply with the operating record requirements of 35 Ill. Admin. Code 724.173.

63. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes that are prohibited from land disposal under 35 Ill. Admin. Code 728, Subpart C, or for which treatment standards have been established under 35 Ill. Admin. Code 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 59 through 62 above.

SECTION VIII: REPORTING AND NOTIFICATION REQUIREMENTS

The reporting and notification requirements of each section of the RCRA permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this permit.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
Section I: WASTE CONTAINER STORAGE AREA		
J.1	Notify Illinois EPA of intention to close the container storage area.	At least 45 days prior to commencement of closure.
J.1	Submit soil sampling and analysis plan for review.	At least 45 days prior to commencement of closure.
J.4	Submit application for modification of permit and post-closure care plan.	Within 30 days after determination that the container storage area must be closed as a landfill; within 60 days if determination is made prior to the implementation of the closure plan.
J.5	Provide financial assurance for closure with waste in place and post-closure care	Within 30 days after permit modification.
J.6	Submit certification for closure of container storage area.	Within 60 days after closure of the container storage area is complete.

SECTION II: LAND TREATMENT -- EAST LTF

D.7	Notify Illinois EPA of a significant increase detected in UZM monitoring and apply for a permit modification.	Within 90 days after determination of increase.
J.1	Notify Illinois EPA of intention to close the land treatment area.	At least 60 days prior to commencement of closure.
J.1	Submit revised closure plan and cost estimates.	At least 60 days prior to commencement of closure.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
J.3.a	Submit survey plat.	Within 60 days after completion of closure for any disposal unit.
J.3.b	Submit notice in deed.	Within 60 days after completion of closure for any disposal unit.
J.3.b	Submit notation and certification that the notification has been properly recorded.	Within 60 days after completion of closure for any disposal unit.
J.4	Submit closure certification and Report.	Within 60 days after completion of closure.
SECTION II-A: LAND TREATMENT — WEST LTF CAMU		
D.7	Notify Illinois EPA of a significant increase detected below the CAMU and apply for a permit modification.	Within 90 days after determination of increase.
H.1	Notify Illinois EPA of intention to close the corrective action management unit.	At least 60 days prior to commencement of closure.
H.1	Submit revised closure plan and cost estimates.	At least 60 days prior to commencement of closure.
H.3.a	Submit survey plat.	Within 60 days after completion of closure for any disposal unit.
H.3.b	Submit notice in deed.	Within 60 days after completion of closure for any disposal unit.
H.3.b	Submit notation and certification that the notification has been properly recorded.	Within 60 days after completion of closure for any disposal unit.
H.4	Submit closure certification and report.	Within 60 days after completion of closure.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
SECTION III: DETECTION MONITORING		
D.5	Submit boring logs, construction diagrams and data sheets for wells.	Within 30 days of well installation.
D.5	Submit well plugging and abandonment certifications.	Within 30 days after well is plugged and abandoned.
J.2	Submit analytical results and measurements and statistical results.	July 15, January 15
J.4	Report groundwater flow rate and direction.	July 15
J.5	Report surveyed elevation of top of well casing (MSL).	July 15
J.11.a	Notify Illinois EPA of statistically significant increase and/or decision to make demonstration that another source caused the increase or that the increase resulted from error in sampling, analysis or evaluation.	Within 7 days of the date increase is discovered.
J.11.c	Submit established background for Appendix I constituents.	Within 180 days of the date increase is discovered.
J.11.d	Submit permit modification to establish compliance monitoring program.	Within 90 days of the date increase is discovered.
J.11.e	Submit corrective action feasibility plan.	Within 180 days of the date increase is discovered.
J.11.f	Submit data necessary to justify any alternate concentration limit.	Within 180 days of the date increase is discovered.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
J.12.a	Notify Illinois EPA that the Permittee intends to demonstrate that a source other than the regulated unit is responsible for a statistical increase or that the increase was due to error.	Within 7 days of the date increase is discovered.
J.12.b	Submit report that demonstrated that a source other than the regulated unit caused a statistical increase or that the increase resulted from error in sampling, analysis or evaluation.	Within 90 days of the date increase is discovered.
J.12.c	Submit application for modification of detection monitoring program	Within 90 days of the date increase is discovered
K.1	Submit permit modification if determination is made that the monitoring program no longer satisfies the regulatory requirements.	Within 90 days of the date the determination is made.
SECTION IV: CORRECTIVE ACTION		See Section IV of Permit
SECTION V: SPECIAL CONDITIONS		See Section V of Permit
SECTION VI: POST CLOSURE CARE AND MONITORING FOR THE EAST LTF		
C.1	Submit revised post-closure plan for land treatment facility.	If necessary, at least 60 days prior to commencement of closure.
F.3	Submit certification for completion of post-closure care and report.	Within 60 days after completing post-closure care for any disposal unit.
SECTION VI-A: POST-CLOSURE CARE AND MONITORING FOR THE WEST LTF CAMU		
C.1	Submit revised post-closure care plan for corrective action management unit.	If necessary, at least 60 days prior to commencement of closure.
F.3	Submit certification for completion of post-closure care and report.	Within 60 days after completing post-closure care for the CAMU.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
SECTION VII: STANDARD CONDITIONS		
6.	Complete application for new permit.	At least 180 days prior to permit expiration.
11.	Provide information requested by Illinois EPA and copies or records required to be kept by this permit.	Reasonable time as by the Illinois EPA.
14.	Notify Illinois EPA of planned physical alterations or additions	At least 15 days prior to planned changes.
16.	Notify Illinois EPA of changes that may result in permit noncompliance.	As needed.
17.	Application for permit modification indicating permit is to be transferred.	As needed.
19.	Submission of any information required in a compliance schedule.	Within 14 days after each schedule date.
20.	Report to Illinois EPA any noncompliance that may endanger health or environment:	
	By telephone	Within 24 hours after discovery
	In writing	Within 5 days after discovery
21.	Report all other instances of noncompliance.	March 1 of each year along with Annual Report.
29.	Notify Illinois EPA in writing of expected receipt of hazardous waste from foreign source.	At least 4 weeks prior to receipt of waste.
42.	Implementation of Contingency Plan.	

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
	Notify appropriate State and local agencies with designated response roles.	As needed.
	Notify appropriate local officials.	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable.
	Notify Illinois EPA (217/782-3637) or Illinois ESDA (217/782-7860) if emergency coordinator determines there has been a release, fire or explosion that could threaten human health or the environment outside the facility.	Immediately after determination is made.
	Notify Illinois EPA and appropriate State and local authorities, in writing, that the facility is in compliance with 35 Ill. Admin. Code 724.156(h).	Prior to resuming operation in affected areas.
	Report to Illinois EPA details regarding incident that required implementation of contingency plan related to RCRA-regulated units or wastes.	Within 15 days after event.
48.	Submit annual report required by 35 Ill. Admin. Code 724.175.	March 1 of each year.
50.	Application for permit modification amending closure plan.	As needed.
51.	Notify Illinois EPA that expecting to close within the following time-frames.	
	Container Storage Area	At least 45 days prior to beginning closure.
	Any Surface Impoundment	At least 60 days prior to beginning closure.
	Any Land Treatment Unit (including CAMU)	At least 60 days prior to beginning closure.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
55(a)	Adjust closure cost estimate for inflation.	Within 60 days prior to the anniversary date, or 90 days after close of fiscal year.
55(b)	Revision of closure cost estimate.	Within 30 days of IEPA approval of request to modify the Closure Plan.
56	Change in financial assurance mechanism for closure.	As needed.
57	Change in coverage for sudden and non-sudden accidental occurrences.	As needed.
58	Notify Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings.	Within 10 days after commencement of proceeding.

ATTACHMENT A

WASTES APPROVED FOR STORAGE IN THE WCSA

ILD005476882

ILLINOIS EPA SITE NO. 0338080002

Waste Streams Potentially Stored in the Waste Container Storage Area

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
Paint Waste					
Aerosol Paint/Solvent Can Residue	Liquid	1,1-Dichloroethene, Methyl Ethyl Ketone, 2-Trichloroethene ¹ , Tetrachloroethene ¹	4A	A	D001, D029, D035, D039, D040 (F001, F002, F003, F005)
Aerosol Paint/Solvent Cans	Solid	Exempt - Recycled	4A	A	Exempt - Recycled
Lead-Contaminated, Paint Chips	Solid	Lead	2A	C	D008
Paint Sludges (Leaded Paint Peelaway)	Solids/Liquids	Ignitability, Corrosivity, Chromium, Lead, Methyl Ethyl Ketone ¹ , Hexachloroethane	4A	A	D001, D002, D007, D008, D034, D035 (F001, F002, F003, F004, F005)
Paint Solvents (Thinner)	Solids/Liquids	Ignitability, Corrosivity, Hexachloroethane, Methyl Ethyl Ketone	4A	A	D001, D002, D034, D035 (F001, F002, F003, F004, F005)
Catalyst/Drying Media					
Activated Alumina/Alumina Drying Media, Spent	Solid	Arsenic, Benzene ¹	2A	B	D004, D018, NH
Catalyst, Spent (Zinc Oxide Beads, Platinum-Rhenium, Zeolite, Silica/Alumina)	Solid	Arsenic, Benzene ¹	2A	B	D004, D018, NH
Hydrorefining Catalysts, Spent (K172)	Solid	Arsenic, Benzene ¹	5A	A	K172
Hydrotreating Catalysts, Spent (K171)	Solid	Arsenic, Benzene ¹	5A	A	K171
Hydrocracking Catalyst, Spent ²	Solid	Varies	5A	B	D004, D018, NH

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
Demister Pad, Spent	Solid	Benzene ¹ , Corrosivity	1A or 1B	C	D002, D018
Molecular Sieve, Spent	Solid	Benzene ¹	4A	A	D018, NH
Kerosene Filter Clay	Solid/Liquid	Benzene ¹	4A	A	D018, NH
BEU – Filter Clay, Spent	Solid	Benzene ¹	4A	A	D018, NH

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
Abrasion Blasting Media					
Glass Bead Blasting Media, Spent	Solid	Cadmium, Lead	2A	B	D006, D008, NH
Sandblasting Media, Spent	Solid	Lead	2A	C	D008, NH
Batteries					
Batteries, Spent (Lead Acid, Alkaline, NI-CAD, Lithium)	Solid	Corrosivity, Cadmium, Lead	1A, 1B, 2A, 3B	B and C	D002, D006, D008; Universal Waste
Personal Protective Equipment					
Personal Protective Equipment (PPE) ²	Solid	Varies	Contaminated PPE potentially belongs to all groups and should be characterized and stored appropriately.	Contaminated PPE potentially belongs to all groups and should be characterized and stored appropriately.	D004, D018, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172
Carbon					
Carbon, Spent	Solid	Benzene ¹ , Tetrachloroethene	4A	A	D018, D039, NH
WWTP					
API Separator Sludge (K051)	Solids/Liquids	Hexavalent Chromium, Lead	5A	A	K051

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
DNF Skimmings (K048)	Solids/Liquids	Hexavalent Chromium, Lead	5A	A	K048
DNF Effluent	Liquid	Benzene ¹	4A	A	D018, NH
Primary Sewer Solids (F037)-- Processed and Unprocessed	Solid	Benzene ¹ , Benzo(a)pyrene, Chrysene, Lead, Chromium	5A	B	F037
Secondary Sewer Solids (F038)	Solids/Liquids	Benzene ¹ , Benzo(a)pyrene ¹ , Chrysene ¹ , Chromium, Lead	5A	B	F038
WWTP (cont.)					
Slop Oil Emulsion Solids (K049)	Solids/Liquids	Hexavalent Chromium, Lead	5A	B	K049
Sewer Sludges (Stormwater) ²	Solid/Liquid	Varies	3A	B	D018, NH
Waste Biosludge	Solid/Liquid	NH	3A	B	NH
Chemicals and Solvents					
Chemicals and Solvents, Miscellaneous Spent/Residual ²	Solids/Liquids	Varies	Chemicals and Solvents potentially belong to all groups and should be characterized and stored appropriately.	Chemicals and Solvents potentially belong to all groups and should be characterized and stored appropriately.	D001, D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D038 (U196), D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F024, F025, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P022, P098, P105, P106, P119, P120, U002, U003, U012, U022, U031, U050, U055, U057, U063, U064, U077, U080, U112, U117, U122, U133, U134, U135, U154, U161, U162, U165, U188, U220, U239, U404, NH
Laboratory Packs ²	Solids/Liquids	Varies	Laboratory packs potentially	Laboratory packs potentially	D001, D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211),

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ¹	Potential EPA Waste Code(s)
			belong to all groups and should be characterized and stored appropriately.	belong to all groups and should be characterized and stored appropriately.	D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D038 (U196), D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F024, F025, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P022, P098, P105, P106, P119, P120, U002, U003, U012, U022, U031, U050, U055, U057, U063, U064, U077, U080, U112, U117, U122, U133, U134, U135, U154, U161, U162, U165, U188, U220, U239, U404, NH
Benzene Contaminated Vials		Benzene ¹	4A	A	D018, U019
Mercury					
Mercury-Containing Instruments/Equipment	Solid	Mercury ¹	2A	B	D009, NH; Universal Waste
Mercury-Contaminated Laboratory Waste	Solids/Liquids	Mercury ¹ (including mercuric iodide, mercuric nitrate, and mercuric sulfate)	2A	B	D009, NH
Mercury-Containing Lamps	Solid	Mercury ¹	2A	B	D009, NH; Universal Waste
Fluorescent Lamps	Solid	Mercury ¹	2A	B	D009, NH; Universal Waste
Tank Bottoms					
Clarified Slurry Oil Storage Tank Sediment and/or In-Line Filter/Separation Solids (K170)	Solid	Benzo(a)pyrene, Benzo(a)anthracene ¹ , Dibenz(a,h)anthracene ¹ , Benzo(b)fluoranthene, Benzo(k)fluoranthene, 3-Methylcholanthrene, 7,12-Dimethylben(a)anthracene	4A	A	K170

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
Crude Oil Storage Tank Bottoms (K169)	Solid	Benzene ¹	4A	A	K169
Tank Bottoms, Leaded (K052)	Solids/Liquids	Lead	5A	B	K052
Tank Bottoms, Unleaded	Solids/Liquids	Benzene, Non-Hazardous	4A	C	D018, NH
Oily Sludge					
Oily Sludge, Miscellaneous	Solid	Benzene ¹	4A	A	D018, NH
Flue Gas Sludge	Solids/Liquids	Arsenic, Cadmium, Chromium, Corrosivity	1B	C	D002, D004, D006, D007, NH
Heat Exchanger Bundle Cleaning Sludge (K050)	Solids/Liquids	Hexavalent Chromium	5A	A	K050
Heater Sludge	Solids/Liquids	Chromium	2A	C	D007, NH
HF Alky Sludge	Solid/Liquid	Corrosivity	1A	B	D002, NH
Cooling Tower Sludge	Solids/Liquid	NH	3A	B	NH
Spill Clean Up					
Adsorbent Media, Spent	Solids/Liquids	Varies	Spent Adsorbent Media potentially belong to all groups and should be characterized and stored appropriately.	Spent Adsorbent Media potentially belong to all groups and should be characterized and stored appropriately.	D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P098, U002, U022, U050, U055, U063, U064, U077, U080, U112, U122, U134, U154, U165, U220, U239, NH
Absorbent Media, Spent ²	Solid/Liquid	Varies	Spent Adsorbent Media potentially	Spent Adsorbent Media potentially	D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
			belong to all groups and should be characterized and stored appropriately.	belong to all groups and should be characterized and stored appropriately.	(U052), D034 (U131), D035 (U159), D036, D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P098, U002, U022, U050, U055, U063, U064, U077, U080, U112, U122, U134, U154, U165, U220, U239, NH
Soil or Debris, Miscellaneous Contaminated ²	Solid	Varies	Misc. Contaminated Soil and Debris potentially belong to all groups and should be characterized and stored appropriately.	Misc. Contaminated Soil and Debris potentially belong to all groups and should be characterized and stored appropriately.	D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P098, U002, U022, U050, U055, U063, U064, U077, U080, U112, U122, U134, U154, U165, U220, U239, NH
Investigation/Remediation/Construction Derived Waste (Soil, Debris, and Groundwater)					
Investigation Derived Waste (IDW) ²	Solids/Liquids	Varies	IDW potentially belongs to all groups and should be characterized and stored appropriately.	IDW potentially belongs to all groups and should be characterized and stored appropriately.	D001, D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P098, U002, U022, U050, U055, U063, U064, U077, U080, U112, U122, U134, U154, U165, U220, U239, NH

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
Remediation Derived Waste (RDW) ²		Varies	RDW potentially belongs to all groups and should be characterized and stored appropriately.	RDW potentially belongs to all groups and should be characterized and stored appropriately.	D001, D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P098, U002, U022, U050, U055, U063, U064, U077, U080, U112, U122, U134, U154, U165, U220, U239, NH
Construction Derived Waste (CDW) ²		Varies	CDW potentially belongs to all groups and should be characterized and stored appropriately.	CDW potentially belongs to all groups and should be characterized and stored appropriately.	D001, D002, D003, D004, D005, D006, D007, D008, D009 (U151), D010, D018 (U019), D019 (U211), D021 (U037), D022 (U044), D023, D024, D025, D026 (U052), D034 (U131), D035 (U159), D036, D039 (U210), D040 (U228), D043 (U043), F001, F002, F003, F004, F005, F037, F038, K048, K049, K050, K051, K052, K169, K170, K171, K172, P098, U002, U022, U050, U055, U063, U064, U077, U080, U112, U122, U134, U154, U165, U220, U239, NH
Mercury-Contaminated Soil or Debris, Misc.	Solid	Mercury ¹	2A	B	D009, NH
Lead-Contaminated Soil or Debris, Misc.	Solid/Liquid	Lead	2A	C	D008, NH
Amine					
Monoethanol (MEA)		NH	4A	C	NH
Monodiethanol (MDEA)		NH	4A	C	NH
Caustics					
Caustics, Spent		Corrosivity	1A	B	D002, NH
Caustic Sludges, Spent		Corrosivity	1A	B	D002, NH

Waste	Physical State	Basis for Listing	Group ³	WCSA Area ⁴	Potential EPA Waste Code(s)
Heaters					
Heater Stack Solids	Solid	Arsenic, Cadmium, Chromium, Corrosivity, Lead, Selenium	1A or 1B	C	D002, D004, D006, D007, D008, D010, NH
Refractory	Solid	Arsenic, Benzene ¹ , Cadmium, Chromium, Lead, Selenium	2A	A	D004, D006, D007, D008, D010, D018, NH

¹ Acutely Hazardous per 40 CFR 261.33(e) or toxic per 40 CFR 261.33(f)

² A variety of chemicals may be present. Care must be exercised in segregation and packaging and should be conducted in accordance with the following hierarchy of hazards: (1) Reactive cyanides and sulfides, (2) Potentially reactive metals, (3) Ignitability, (4) Corrosivity (i.e., cyanides/sulfides pose the greatest threat, next is reactive metals, etc.).

³ Based on constituent group listing in Table D1-2 from 40 CFR 264, Appendix V

⁴ Waste Container Storage Area Designations:

- A Ignitable Wastes
- B All other wastes incompatible with those in Area A and Area C
- C Corrosives and other compatible wastes

Note – Wastes must be separated within Area B based on compatibility. Incompatible wastes may be stored in Area B only if the incompatible wastes are provided with separate secondary containment so as to prevent mixing of the wastes in the event of a spill

ATTACHMENT B
EXAMPLES OF INCOMPATIBLE WASTES
ILD005476882
ILLINOIS EPA SITE NO. 0338080002

EXAMPLES of INCOMPATIBLE WASTES or
WASTE COMPATIBILITY CLASSIFICATIONS AT MARATHON PETROLEUM
COMPANY LP

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects that are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences that result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequences as noted.

Group 1-A

Group 1-B

Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic wastewater
Lime sludge and other corrosive alkalis
Lime wastewater
Lime and water
Spent caustic

Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte, acid
Etching acid, liquid or solid
Pickling liquor and other corrosive acids
Spent acid
Spent mixed acid
Spent sulfuric acid

Potential consequences: Heat generation; violent reaction

Group 2-A

Group 2-B

Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and metal hydrides

Any waste in Groups 1-A or 1-B

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

Group 3-A

Group 3-B

Alcohols
Water

Any concentrated waste in Groups 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO₂Cl₂, SOCl₂, PCl₃, CH₃SiCl₃
Other water-reactive metals and metal hydrides

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A

Group 4-B

Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents

Concentrated Group 1-A or 1-B wastes
Group 2-A wastes

Potential consequences: Fire, explosion or violent reaction.

Group 5-A

Group 5-B

Spent cyanide or sulfide solutions

Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A

Group 6-B

Chlorates
Chlorine
Chlorites
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers

Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes

Potential consequences: Fire, explosion, or violent reaction.

ATTACHMENT C

FINANCIAL ASSURANCE/LIABILITY REQUIREMENTS

ILD005476882

ILLINOIS EPA SITE NO. 0338080002

ATTACHMENT C: FINANCIAL ASSURANCE/LIABILITY REQUIREMENTS

1. CLOSURE AND POST-CLOSURE

The Permittee shall maintain financial assurance under the requirements of 35 Ill. Admin. Code, 724, Subpart H, for closure of all hazardous waste management units at the facility and for post-closure care and monitoring of the 40 acre land treatment facility (the 20-acre East LTF and the 20-acre West LTF CAMU). The cost estimates upon which the financial assurance is to be based are summarized below:

Closure of Container Storage Area	\$ 174, 523
Closure of Land Treatment Facilities	\$2,424,412
Post-closure Care for Land Treatment Area (40 acres)	\$4,311,412 =====

TOTAL CLOSURE/POST-CLOSURE COSTS = \$6,910,347*

*Basis – Year 2017

2. LIABILITY REQUIREMENTS

The Permittee shall maintain liability coverage during the active life (including the closure period) of the hazardous waste management units at this facility in the following amounts:

- a. Liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs; and
- b. Liability for non-sudden accidental occurrences in the amount of at least \$3 million per occurrence with an annual aggregate of at least \$6 million, exclusive of legal defense costs.

3. COMPLETION OF CORRECTIVE ACTION

The Permittee shall maintain financial assurance for the completion of corrective action as required under 35 Ill. Admin. Code 724.201. The cost estimate upon which the financial assurance is to be based is \$757,400 (in 2017 dollars) as presented in Appendix K.6 of the Approved Permit Application.

ATTACHMENT D

CLOSURE CERTIFICATION FORMS

ILD005476882

ILLINOIS EPA SITE NO. 0338080002

ATTACHMENT D-1

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one (1) copy of the certification with original signatures and three (3) additional copies.

Closure Certification Statement

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the Approved Closure Plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

USEPA ID Number

Facility Name

Signature of Owner/Operator, Date

Name and Title

Signature of Registered P.E., Date

Name of Registered P.E. and Illinois

Registration Number

Mailing Address of P.E.:

Registered P.E.'s Seal:

ATTACHMENT D-2

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

The hazardous waste management unit (identify unit) at the facility described in this document has been closed in accordance with the specifications in the Approved Closure Plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The Owner/Operator hereby certifies that he has recorded the notation specified in 35 Ill. Admin. Code, 724.219(b)(1) as amended February 14, 2003.

USEPA ID Number

Facility Name

Signature of Owner/Operator

Name and Title

Signature of Registered P.E.

Name of Registered P.E. and Illinois
Registration Number

Date

ATTACHMENT E

**SWMUs/AOCs at MPC FACILITY and THEIR STATUS
&
SUMMARY OF CORRECTIVE ACTION SUBMITTALS**

ILD005476882

ILLINOISEPA SITE NO. 0338080002

SWMUs/AOCs at the Marathon Facility and Their Status		
Unit No.	Unit Name	Information Regarding Status of Unit
	<u><i>Units First Identified by USEPA</i></u>	
SWMU 1	300-gallon UST	Identified by USEPA— NFA determination made February 28, 1994 by USEPA.
SWMU 2	Closed Landfarm	Identified by USEPA. NFA determination made May 20, 1997 by USEPA. On April 24, 2006, MPC proposed to conduct further corrective action at this unit. The renewed RCRA permit issued November 16, 2007 identified this SWMU as a Category B unit. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 3	Three Surface Impoundments—(Oily Sludge Pit; DAF Skimmings Pit; Bulk Waste Pit)	Identified by USEPA – NFA determination made February 28, 1994 by USEPA. These units were also hazardous waste surface impoundments covered by the original RCRA permit issued for the facility on September 28, 1988. They were closed in accordance with plans and reports approved by Illinois EPA. On November 26, 2001, Illinois EPA determined they had been “clean closed” in accordance with 35 Ill. Admin. Code 742.
SWMU 4	Storm Water (Lab) Pond	Identified by USEPA. NFA determination made by Illinois EPA on May 9, 2002, based on establishment of an ELUC restricting groundwater use beneath facility.
SWMU 5	Aerated Surge/ Activated Sludge Basin	Identified by USEPA. NFA determination made March 2, 1995 by USEPA.
SWMU 6A	West Impoundment (previously referred to as the West Storm Waste Impoundment)	Identified by USEPA. NFA determination made May 20, 1997 by USEPA. On April 24, 2006, MPC proposed to conduct further corrective action at this unit. The renewed RCRA permit issued November 16, 2007 identified this SWMU as a Category B unit. Currently, corrective action at this unit is being carried out as part of the work at AOC 14.
SWMU 6B	Wabash Pond	Identified by USEPA. NFA determination made May 20, 1997 by USEPA.
SWMU 7	Biosludge Drying Beds and Biosludge Pit	Identified by USEPA. NFA determination made May 20, 1997 by USEPA.

SWMU 8	Former Waste Pile	Identified by USEPA. NFA determination made May 20, 1997 by USEPA.
SWMU 9	Weathering Pads (five locations)—located at Tanks 21D-805; 21D-911; 21D-952; 21D-1015 and 21D-1022	Identified by USEPA. NFA determination made May 20, 1997 by USEPA.
SWMU 10	Former Heat Exchanger Bundler Cleaning Areas (North and South Pads)	Identified by USEPA. NFA determination made May 20, 1997 by USEPA
SWMU 11	Former Truck Rinse Pad	Identified by USEPA. NFA determination made May 20, 1997 by USEPA.
SWMU 12A	Waste Container Storage Area	Identified by USEPA, but no corrective action required. The Unit is covered by Section I of this Permit.
SWMU 12B	Drum Storage Areas (North and South)	Identified by USEPA, but no corrective action required.
SWMU 13	HF Alky Tank	Identified by USEPA, but no corrective action required Incorporated into AOC 15 on May 23, 2012.
SWMU 14	Caustic Storage Tank	Unit closed per Closure Plan dated December 4, 1985. Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 15	Sulfuric Acid Neutralization Tank	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 16	Wastewater Treatment Plant	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 17	Product Sample Tanks (2)	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 18	4,000-gallon UST	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 19	Tank 21D-45	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 20	West Land Treatment Facility CAMU (active land treatment facility)	Identified as a SWMU by USEPA, but no additional corrective action required. Unit covered by Section IV-A of this permit.
SWMU 21	East Impoundment	Identified as a SWMU by USEPA, but no additional corrective action required.

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SWMU 22	York Pond	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 23	No. 3 Firewater Pond	Identified as a SWMU by USEPA, but no additional corrective action required. MPC proposed to conduct further corrective action at this unit during the process of renewing the RCRA permit for this facility in 2004. The renewed RCRA permit issued November 16, 2007 identified this unit as a Category B unit. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 24	Three Small Impoundments	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 25	Ponded Liquids in Tank Containment Areas	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 26	Unidentified Lagoon—Northwest corner of facility	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 27	Spray Pond	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 28	Incinerator	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 29	Asbestos landfill	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 30	Construction Material Landfill	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 31	Impoundment Dredging Waste pile	Identified as a SWMU by USEPA, but no additional corrective action required.
SWMU 32	Sludge Burial/Areas/Contaminated Soil/Stained Surface Water in Tank Containment Areas	Identified as a SWMU by USEPA, but no additional corrective action required. The contaminated soil area was incorporated into AOC 15 on May 23, 2012. MPC proposed to conduct further corrective action at this unit in the process of renewing the RCRA permit for this facility in 2004. The renewed RCRA permit issued November 16, 2007 identified this SWMU as a Category B unit. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 33	Heat Exchanger Bundle Disposal Sites (East and West)	Identified as a SWMU by USEPA, but no additional corrective action required.

SWMU 34	Catalyst and Inert Items Waste Pile	Identified as a SWMU by USEPA, but no additional corrective action required.
	<u>Units Identified by Illinois EPA</u>	
SWMU 35	East Land Treatment Facility	Identified as a Category C unit by Illinois EPA. No corrective action required. This unit is covered by Section IV of this Permit.
SWMU 36	New API and DNF Units	Identified as a Category C unit by Illinois EPA. No corrective action required.
SWMU 37	Filter press	Identified as a Category C unit by Illinois EPA. No corrective action required.
SWMU 38	MOSC Tank (Tank 21D-91)	Identified as a Category C unit by Illinois EPA. No corrective action required. Incorporated into AOC 15 on May 23, 2012.
SWMU 39	Less than 90 day Storage Area (5 areas): (1) Environmental Loading Dock; (2) LTDD pad; (3) Waste paint storage pad; (4) Old Roll-off box storage area; and (5) New Roll-off Box Storage Area	Identified as a Category A unit by Illinois EPA. The Waste Paint Storage Pad was incorporated into AOC 15 on May 23, 2012. The New Roll-Off Box Storage Area is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016. NFA determination made for the other four areas on July 5, 2011.
SWMU 40	Wash Pad (a less-than-90-day storage area)	Identified as a Category A unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 41	No. 2 Firewater Pond	Identified as a Category B unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 42	Fire Training Area	Identified as a Category B unit by Illinois EPA. Being addressed as part of AOC 14
SWMU 43	Temporary Sandblasting Area	Identified as a Category A unit by Illinois EPA. NFA determination made on July 5, 2011.
SWMU 44	New Sandblasting Area	Identified as a Category A unit by Illinois EPA. NFA determination made on July 5, 2011.
SWMU 45	Former API and DAF Units	Identified as a Category B unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective

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		Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 46	Frog Pond	Identified as a Category A unit by Illinois EPA. NFA determination made on July 5, 2011.
SWMU 47	Refinery Sewer System	Identified as a Category C unit by Illinois EPA. Has been and continues to be addressed in accordance with an Illinois Pollution Control Board Order (Docket No. 1998-090) that became effective on May 6, 1999.
SWMU 48	Satellite Accumulation Area	Identified as a Category C unit by Illinois EPA. No corrective action required. Incorporated into AOC 15 on May 23, 2012.
SWMU 49	Former Paint Storage Area	Identified as a Category A unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
SWMU 50	Sulfur Pits	Added as a Category B unit after renewed permit issued by Illinois EPA. Illinois EPA's September 12, 2013 letter indicated NFA was necessary at this unit.
AOC 1	Old Sump/Junction Box	Identified as a Category B unit by Illinois EPA. Overlaps AOCs 8 and 11 and will be addressed as part of the work at these two units.
AOC 2	Lincolnite Burial Area	Identified as a Category A unit by Illinois EPA. A substantial amount of work has been completed within this unit, especially in the area where a Gas Desulfurization Unit was constructed. The remaining locations of concern within this unit are addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 3	Oily Soil Near Marathon Creek	Identified as a Category A unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 4	Oily Soil East of the West Impoundment near the Biosludge Pit	Identified as a Category B unit by Illinois EPA. It is being addressed as part of AOC 14.
AOC 5	HF Alky Bundle Burial Area	Identified as a Category A unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 6	Old Landfill Area	Identified as a Category A unit by Illinois EPA. NFA determination made on July 5, 2011

AOC 7	Old Sludge Disposal Area	Identified as a Category A unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 8	Impacted Soil Area	Identified as a Category A unit by Illinois EPA it is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 9	Old Process Area Under E & I Shop	Identified as Category B unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 10	Old Fire Training Area	Identified as a Category B unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 11	Former Truck Loading Terminal	Identified as a Category A unit by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 12	Pumphouse Line Leak	Identified as a Category B unit by Illinois EPA. Incorporated into AOC 15 on May 23, 2012.
AOC 13A	Former Caustic Tank A	Added as a Category B unit after renewed permit issued by Illinois EPA. Incorporated into AOC 15 on May 23, 2012.
AOC 13B	Former Caustic Tank B	Added as a Category B unit after renewed permit issued by Illinois EPA. Incorporated into AOC 15 on May 23, 2012.
AOC 14	Area South of Waste Container Storage Area	Added as a Category B unit after renewed permit issued by Illinois EPA. It is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
AOC 15	SWMUs and AOCs in the Refinery Process Area	Created May 23, 2012 as a Category B unit. Includes SWMUs 13, 32, 38, 39/Paint Waste Storage Area, 48 and 49. Also includes AOCs 2, 12, 13A and 13B Soil investigation deferred at each unit. Groundwater monitoring for the unit to be incorporated into the PMP.
AOC 16	Penex Release Area	Added on May 8, 2012 as a Category A unit. NFA determination made by Illinois EPA on March 22, 2016 (based in part on an established ELUC)

AOC 17	Area South of Combustor Pond	Added on February 15, 2013 as a Category B unit. This unit is addressed in the RFI Supplemental Report and Corrective Measures Plan, Category A and B SWMUs and AOCs submitted August 31, 2016.
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Marathon ca units

CORRECTIVE ACTION SUBMITTALS

Notes:

1. This document lists the various plans and reports received by Illinois EPA regarding RCRA corrective action efforts at the MPC Robinson Refinery. The date Illinois EPA responded to each of these plans/reports is also provided in this document. Plans/reports that have yet to be responded to are presented in italicized print.
2. A RCRA permit was initially issued for this facility on September 30, 1988 and USEPA had the responsibility of overseeing the corrective action efforts at the facility. This permit expired on November 4, 1998 and MPC submitted a timely application to renew this permit. As such, provisions of this permit remained in effect until a renewed RCRA permit was issued to the facility on November 16, 2007. Due to the fact that Illinois EPA was reviewing the renewal applications and had authority to implement the corrective action program, it took over oversight of the RCRA corrective action program at this facility in 2002. Thus, the table below identifies several documents approved by Illinois EPA prior to the issuance of the renewed RCRA permit on November 16, 2007.
3. Two key aspects of the corrective action program implemented at this facility since Illinois EPA assumed responsibility for the Corrective Action Program oversight are: (a) the remediation efforts carried out at the Gas Desulfurization Unit (GDU) constructed within AOC 2; and (b) establishment of a Perimeter Monitoring Program (PMP) for the groundwater at the facility.

Log No.	Submittal	Status
CA-1	Workplan to investigate for potential contamination at the location where a GDU is to be constructed	Approved February 21, 2003
CA-2	Investigation Report and Remediation Plan for GDU	Approved July 17, 2003
CA-3	Corrective Action Submittal Superseded by Other Submittals	No final action taken
CA-4	Corrective Action Submittal Superseded by Other Submittals	No final action taken
CA-5	Information associated with the Investigation Report and Remediation Plan for GDU (see CA-2 above)	Approved July 17, 2003
CA-6	Corrective Action Submittal Superseded by Other Submittals	No final action taken
CA-7	Corrective Measures Report for GDU	Approved September 13, 2004
CA-8	Addendum to GDU Corrective Measures Report	Approved December 16, 2004
CA-9	Request to modify groundwater monitoring program for the GDU	Approved May 6, 2005
CA-10	Addendum to GDU Corrective Measures Report	Approved November 23, 2005
CA-11	Addendum to GDU Corrective Measures Report	Approved November 23, 2005
CA-12	Request to modify groundwater monitoring program for the GDU	Approved November 1, 2005
CA-13	Addendum to GDU Corrective Measures Report	Approved November 23, 2005
CA-14	Recorded ELUC for the GDU and AOC 2.	Approved April 21, 2006
B-56R	Renewed RCRA Permit Issued. Section III of this permit contained the corrective action requirements that must be met at the facility.	Issued November 16, 2007

CA-15	Request to use the West Stormwater Impoundment (SWMU 6A) for temporary Storage of Uncontaminated Stormwater from the East Impoundment (SWMU 21)	Approved March 7, 2008
CA-16	Re-logged as additional information to M-2	Not applicable
CA-17	Proposed PMP	Approved August 6, 2008
CA-18	Category A SWMUs/AOCs Phase I/II Workplan	Approved May 14, 2009
CA-19	Request to abandon/replace two wells at the GDU (GDU-MW-03 and GDU-MW-06)	Approved August 28, 2009
CA-20	Notification of newly identified AOC 13A and 13B	Approved June 3, 2009
CA-21	Notification of discharge of hydrocarbon test water to the discharge to East impoundment pond (outfall 003)	Approved February 11, 2009
CA-22	Notification of spent caustic discharge to the aerated surge/activated sludge basin (SWMU 5)	Approved February 11, 2009
CA-23	Notification of newly identified SWMU #50, Sulfur Pits	Approved June 3, 2009
CA-24	Notification of the discovery of LNAPL at AOC 13A - Former Caustic Tank Area	Approved June 14, 2010
CA-25	Groundwater Investigation Plan for the PMP	Approved May 10, 2010
CA-26	Notification of newly identified AOC 14 - Area South of the Waste Container Storage Area	Approved June 14, 2010
CA-27	GW Investigation Report for PMP groundwater monitoring well -MW-19	Approved October 4, 2010
CA-28	Phase II Report for Category A SWMUs and AOCs	Approved July 5, 2011
CA-29	Request to deactivate existing interceptor trench and implement mobile dual phase extraction system at the GDU	Approved September 27, 2011

CA-30	Supplemental Investigation Report for the PMP	Approved March 14, 2011
CA-31	Additional information regarding the request to implement mobile dual phase extraction to recover the remaining residual LNAPL surround the recovery trench	Approved September 27, 2011
CA-32	Modification of the PMP	Approved October 11, 2011
CA-33	Phase I/II Workplan for Category B SWMUs and AOCs	Approved February 8, 2012
CA-34	Request to Extend Due Date for Submitting a Groundwater Investigation Plan for the PMP	Approved October 11, 2011
CA-35	Alternate Source Demonstration for the groundwater quality associated with the PMP (Spring 2011)	Approved May 23, 2012
CA-36	Proposal to create a new AOC—AOC 15; “Process Area AOC”	Approved May 23, 2012
CA-37	Evaluation of the potential change in groundwater quality for dissolved nickel at Monitoring Well P-12A associated with the PMP.	Approved May 23, 2012
CA-38	Spill Response Workplan for New AOC—AOC 16	Approved May 23, 2012
CA-39	Modification of the course of action for chloroform at Well PMP-MW-19	Approved May 23, 2012
CA-40	Modification of the GDU Corrective Action Plan	
CA-41	PMP Extension Request for submitting information required by Condition 10 of Attachment A of Illinois EPA’s October 11, 2011 letter regarding the PMP	Approved October 15, 2012
CA-42	PMP Extension Request for submitting information required by Condition 10 of Attachment A of Illinois EPA’s October 11, 2011 letter regarding the PMP	Approved October 15, 2012
CA-43	PMP Extension Request	Approved October 15, 2012

CA-44	Investigation Report and Corrective Measures Plan for AOC 16	Approved October 18, 2012
CA-45	Alternate Source Demonstration regarding change in groundwater quality associated with the PMP (Fall 2011)	Approved October 15, 2012
CA-46	Information regarding installation of Monitoring Wells	Approved October 23, 2012
CA-47	Proposed changes to schedule for corrective action activities at the facility	Approved February 15, 2013
CA-48	Approved request to perform excavation and/or geotechnical drilling within SWMU 4 where an ELUC is in place	Approved December 13, 2012
CA-49	Alternate Source Demonstration for a change in Groundwater quality associated with the PMP (Spring 2012)	Approved August 28, 2013
CA-50	Request clarification of Attachment A of 10/13/12 IEPA letter	Approved August 28, 2013
CA-51	Notification of new Area of Concern AOC 17—Area South of Combustor Pond	Approved February 15, 2013
CA-52	Groundwater Investigation Plan for MTBE at Monitoring Well PLL-MW-01 associated with the PMP	Approved May 22, 2013
CA-53	Extension request for implementing the corrective measures plan at AOC 16	Approved September 12, 2013
CA-54	Alternate Source Demonstration for Change in Groundwater Quality associated with the PMP (Fall 2012)	Approved May 22, 2013
CA-55	Request to Modify the GDU LNAPL Recovery Corrective Action Program and Request for No Further Remediation at AOC-2	Approved June 6, 2013
CA-56	Well Completion Reports at AOC 16	Approved September 12, 2013

CA-57	Investigation workplan for AOC 17 and additional information regarding SWMU 50	Approved September 12, 2013
CA-58	Draft ELUC to support the NFA determination at the GDU and AOC 2	Approved August 18, 2014
CA-59	Alternate Source Demonstration for Change in Groundwater Quality associated with the GDU (Spring 2013)	Approved November 13, 2013
CA-60	Corrective Measures Report for AOC 16	Approved March 6, 2014
CA-61	RFI Phase I/II Report for Category B and Supplemental Category A SWMUs and AOCs.	November 20, 2015
CA-62	Alternate Source Demonstration for change in groundwater quality associated with the GDU (Fall 2013)	Approved August 5, 2014
CA-63	Alternate source demonstration for change in groundwater quality associated with the GDU	Approved August 5, 2014
CA-64	Indoor air exposure route evaluation for AOC 16	Approved November 6, 2014
CA-65	Request to Reduce Sampling and Reporting Requirements for the PMP	Approved September 17, 2014
CA-66	Alternate Source Demonstration for Change in Groundwater Quality associated with the PMP (Spring 2014)	Approved September 24, 2014
CA-67	Filed Environmental Land Use Control for GDU and AOC 2	Approved February 18, 2015
CA-68	Request to clarify the Upper Prediction Limit Value for the PMP	Approved March 3, 2015
CA-69	Alternate Source Demonstration for Change in Groundwater Quality associated with the PMP (Fall 2014)	Approved March 30, 2015

CA-70	Proposed construction activities in the vicinity of SWMU 5 and AOC 17	Approved November 2, 2015
CA-71	Additional information regarding the corrective measures program at AOC 16 and draft ELUC for AOC 16	Approved November 3, 2015
CA-72	Supplemental Phase II RFI Work Plan for Proposed Groundwater Investigation at SWMU 40 and AOC 17	Approved: February 29, 2016
CA-73	Filed Environmental Land Use Control filed for AOC 16 Penex Release Area (located near Tank 77C-14).	Approved March 22, 2016
CA-74	Alternate Source Demonstration for Change in Groundwater Quality associated with the PMP (Fall 2015)	Approved October 7, 2016
CA-75	Alternate Source Demonstration for Change in Groundwater Quality associated with the PMP (Spring 2015)	Approved March 10, 2017
CA-76	Updated Upper Prediction Limit Values for the PMP.	Approved May 19, 2017
CA-77	Alternate Source Demonstration for a Change in Groundwater Quality associated with the PMP (Spring 2016)	Approved: March 10, 2017
CA-78	<i>Supplemental Phase II Report and Corrective Measures Plan</i>	<i>Received September 1, 2016</i>
CA-79	Alternate Source Demonstration for Change in groundwater quality associated with the PMP. (Fall 2016)	Approved: May 19, 2017
CA-80	<i>Request for reduction in sampling frequency for five monitoring wells associated with the PMP and modification to notification requirements for the PMP</i>	<i>Received May 3, 2017</i>
CA-81	<i>Request to correct certain updated UPL values for the PMP</i>	<i>Received June 13, 2017</i>
CA-82	<i>PMP Alternate Source Demonstration for change in groundwater quality-(Spring 2017)</i>	<i>Received August 17, 2017</i>

ATTACHMENT F
LANDFARM CELLS AND LYSIMETER LOCATIONS
ILD005476882
ILLINOIS EPA SITE NO. 0338080002

LANDFARM CELLS AND LYSIMETER LOCATIONS

The 40-acre land treatment facility at MPC's Robinson Refinery has been divided into nine cells that vary in size from approximately three to five acres. Figure 1 shows a plan view of the facility and the nine cells.

Cell Nos. 1 through 4 consist of the 20-acre West LTF CAMU. Cell Nos. 5 through 8 consist of the 20-acre East LTF that MPC constructed during the summer of 1988. Cell No. 9 consists of three acres not currently used for land treatment of refinery wastes, but which are part of the West LTF CAMU's existing run-on/run-off control system.

Construction of the East LTF and West LTF CAMU consisted of 1) earthwork to construct run-on/run-off control berms capable of withstanding a 24-hr, 25-year rainfall event; 2) installation of groundwater monitor wells as described in the Approved Permit Application; and 3) installation of lysimeters within the run-on/run-off control boundaries as well as background lysimeters immediately north of the landfarms.

MPC will manage each 20-acre facility (East LTF and West LTF CAMU respectively) such that each cell will receive approximately the same amount of waste (as measured by the oil and grease content of the waste) on a per acre basis. This will be accomplished based on laboratory determination or estimation by personnel from the environmental department of the oil and grease content of each waste load delivered to a particular cell. As-generated wastes will be routed to particular cells on the East LTF as necessary to achieve similar oil and grease loading rates. Remediation wastes will be routed to particular cells on the West LTF CAMU as necessary to achieve similar oil and grease loading rates.

Accumulation of inorganic compounds will be monitored during the unsaturated zone monitoring program that will be followed during the life of the RCRA-permitted unit.

Also shown on Figure 1 are the locations of all lysimeters that have been installed in the land treatment facilities to monitor the quality of soil pore liquids leaving the treatment zone. These locations are estimates taken from the Approved Permit Application, but are close enough to illustrate the location of a particular lysimeter relative to the boundaries of each cell. As indicated on Figure 1, each cell in both 20-acre facilities has at least one lysimeter.

TABLE 1. LANDFARM LYSIMETER INSTALLATION DATA

Lysimeter No.	Date Installed	Cell No.	Lysimeter Type	Plant Coordinates	
				South	East
L-1	16 Aug 88	1	Pressure-Vacuum	1,970	5,605
L-1a	17 Aug 88	1	Glass Block	1,575	5,710
L-2	15 Aug 88	2	Pressure-Vacuum	1,975	5,925
L-3	17 Aug 88	3	Pressure-Vacuum	1,000	5,700
L-4	15 Aug 88	4	Pressure-Vacuum	1,085	5,885
L-5	06 Jan 89	5	Glass Block	1,620	6,420
L-5a	11 Jan 89	5	Pressure-Vacuum	1,430	6,200
L-604	27 Sept 04	6	Pressure-Vacuum	1,930	6,650
L-6a	09 Jan 89	6	Glass Block	1,980	6,520
L-703	07 Oct 03	7	Pressure-Vacuum	1,100	6,350
L-803	07 Oct 03	8	Pressure-Vacuum	1,050	6,700
L-9	06 Aug 90	9	Pressure-Vacuum	590	5,850
BG-105	12 Oct 05	NA	Pressure-Vacuum	650	6,720
BG-2	15 Aug 88	NA	Pressure-Vacuum	650	6,680
BG-3	16 Aug 88	NA	Pressure-Vacuum	650	6,640
BG-4	16 Aug 88	NA	Pressure-Vacuum	650	6,600
L-5b05	12 Oct 05	5	Pressure-Vacuum	1,480	6,200

1) Lysimeter numbers ending with a designator such as "03" or "04" indicate the year in which a replacement lysimeter was installed. For example, lysimeter L-7 was replaced in October 2003 and is now called lysimeter L-703.

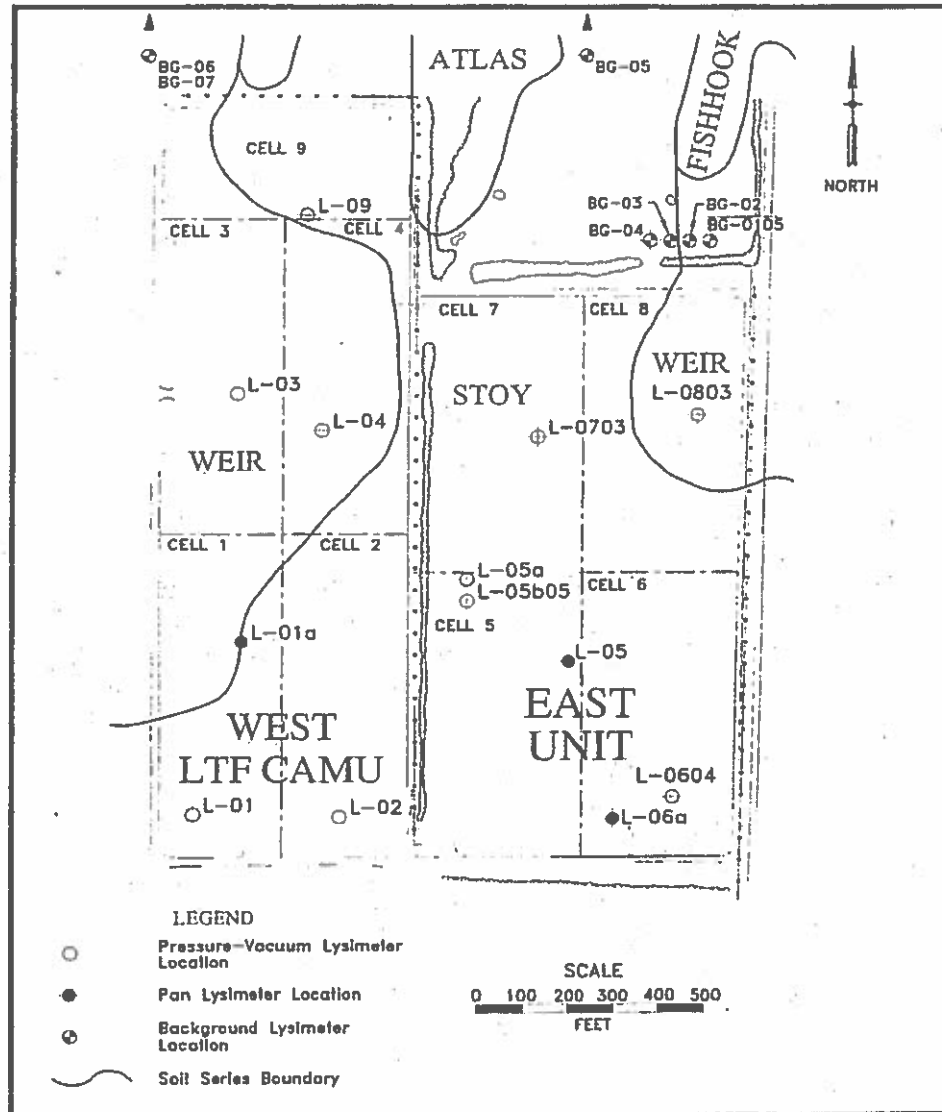
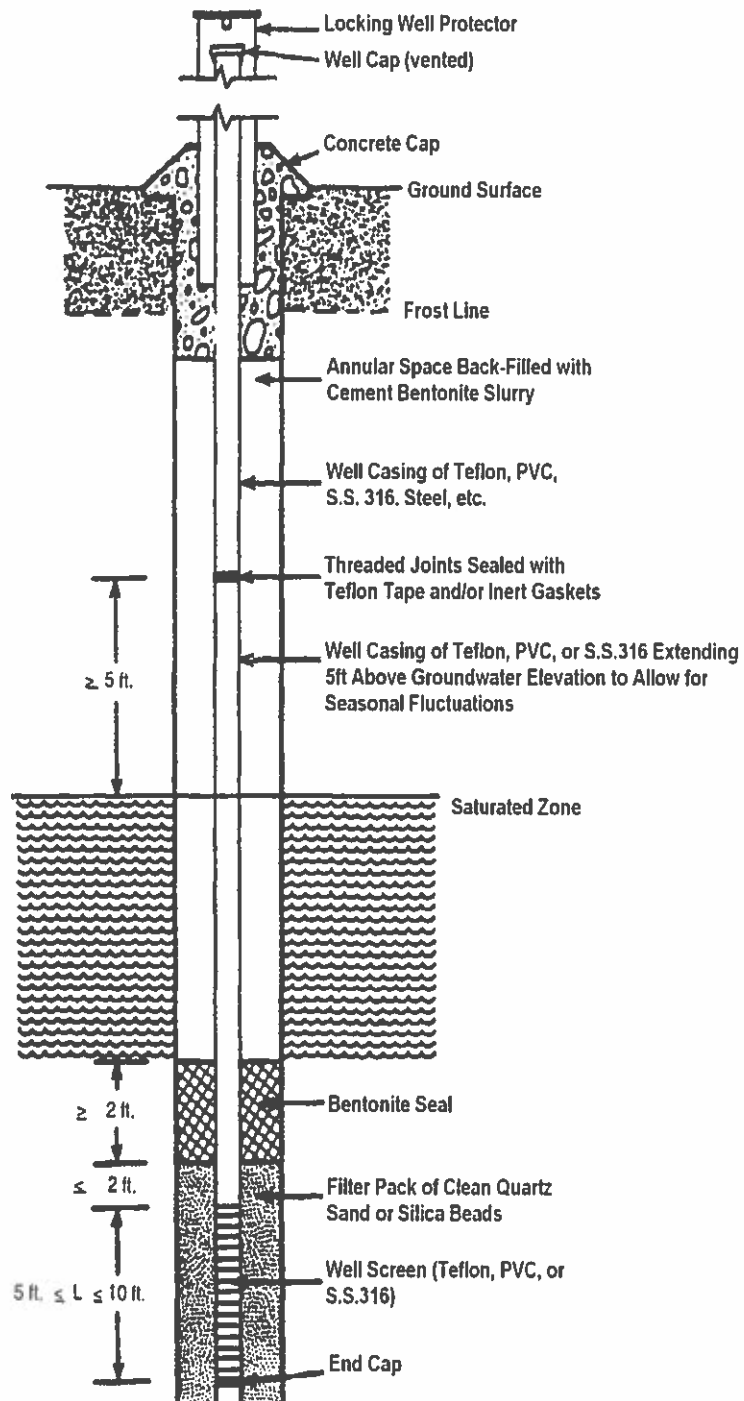


Figure 1. Landfarm Cells and Lysimeter Locations

ATTACHMENT G
GROUNDWATER MONITORING ATTACHMENTS
ILD005476882
ILLINOIS EPA SITE NO. 0338080002

Monitoring Well Diagram



ILLINOIS EPA MONITOR WELL PLUGGING AND ABANDONMENT PROCEDURES

	Well Construction		Plugging Procedure
	I-A	...if backfilled with cement grout above bentonite seal and/or sandpack:	
I. Unconsolidated Sediment Wells	I-A	...if backfilled with cement grout above bentonite seal and/or sandpack:	<ol style="list-style-type: none"> 1. Cut casing off at desired depth. 2. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 3. Insert tremi pipe (1" i.d. pvc) into well and extend to bottom. 4. Slowly pump slurry under low pressure through tremi pipe. 5. Slowly withdraw tremi pipe - making sure bottom of pipe remains below pure slurry. 6. Continue slow pumping until all formation water and the watery slurry mix is displaced from top of casing.
	I-B	...if backfilled with soft sediments (cuttings) above bentonite seal and/or sandpack:	<ol style="list-style-type: none"> 1. Knock out and remove thin surface concrete plug, if present. 2. Re-auger entire length of well. 3. Remove well casing from re-augured borehole. 4. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 5. Insert tremi pipe (1" i.d. pvc) into augers and extend to bottom. 6. Slowly pump slurry under low pressure through tremi pipe. 7. Continue slow pumping until all formation water and the water slurry mix is displaced from top of casing. 8. Slowly withdraw tremi pipe - making sure bottom of pipe remains below pure slurry. 9. Pull a flight of augers (5" if in unstable materials and hole collapse is likely or 10" if in competent material and collapse is unlikely). 10. Top off cement slurry after each flight is removed.
	I-C	...if monitor well construction is unknown:	<ol style="list-style-type: none"> 1. Follow procedures in I-A.
II. Bedrock Wells	II-A	...All bedrock monitor wells:	<ol style="list-style-type: none"> 1. Cut casing off at desired depth. 2. Mix neat cement slurry (5 gal. water per 94 lb. bag cement). 3. Insert tremi-pipe (1" i.d. pvc) into well and extend to bottom. 4. Slowly pump slurry under low pressure through tremi pipe. 5. Slowly withdraw pipe making sure bottom of pipe remains below pure slurry. 6. Continue slow pumping until all formation water and the watery slurry mix is displaced from top of casing.



Page ____ of ____

Boring No. _____ Monitoring Well No.: _____

Surface Elevation: _____ Completion Depth: _____

Auger Depth: _____ Rotary Depth: _____

Date: Start _____ Finish: _____

Site File No. _____ Federal ID No. _____

Site File Name: _____

Quadrangle: _____ Sec. _____ T. _____ R. _____

UTM (or State
Plane) Coord. N. (X) _____ E (Y): _____

Latitude _____° _____' _____" Longitude _____° _____' _____"

Drilling Location: _____

Drilling Equipment: _____

[illegible]



Illinois Environmental Protection Agency

Well Completion Report

Site Number: _____ County: _____

Site Name: _____ Well #: _____

State _____

Plane Coordinate: X _____ Y _____ (or) Latitude: _____° _____' _____" Longitude: _____° _____' _____" Borehole #: _____

Surveyed by: _____ IL Registration #: _____

Drilling Contractor: _____ Driller: _____

Consulting Firm: _____ Geologist: _____

Drilling Method: _____ Drilling Fluid (Type): _____

Logged By: _____ Date Started: _____ Date Finished: _____

Report Form Completed By: _____ Date: _____

ANNULAR SPACE DETAILS

Type of Surface Seal: _____

Type of Annular Sealant: _____

Installation Method: _____

Setting Time: _____

Type of Bentonite Seal – Granular, Pellet, Slurry
(Choose One)

Installation Method: _____

Setting Time: _____

Type of Sand Pack: _____

Grain Size: _____ (Sieve Size)

Installation Method: _____

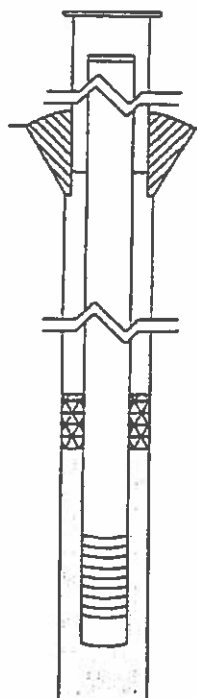
Type of Backfill Material: _____
(if applicable)

Installation Method: _____

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other



Elevations
(MSL)*

Depth
(BGS)

(.01ft.)

____ Top of Protective Casing

____ Top of Riser Pipe

____ Ground Surface

____ Top of Annular Sealant

____ Static Water Level
(After Completion)

____ Top of Seal

____ Top of Sand Pack

____ Top of Screen

____ Bottom of Screen

____ Bottom of Well

____ Bottom of Borehole

* Referenced to a National Geodetic Datum

CASING MEASUREMENTS

Diameter of Borehole (inches)	_____
ID of Riser Pipe (inches)	_____
Protective Casing Length (feet)	_____
Riser Pipe Length (feet)	_____
Bottom of Screen to End Cap (feet)	_____
Screen Length (1 st slot to last slot) (feet)	_____
Total Length of Casing (feet)	_____
Screen Slot Size**	_____



Illinois
Environmental
Protection Agency

Bureau of Land
1021 North Grand Avenue East
Box 19276
Springfield, IL 62794-9276

RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

This form must be used as a cover sheet for the notices and reports, identified below as required by: (1) a facility's RCRA interim status closure plan; (2) the RCRA interim status regulations; or (3) a facility's RCRA permit. All reports must be submitted to the Illinois EPA's Bureau of Land Permit Section. This form is for use by Hazardous Waste facilities only. Reporting for Solid Waste facilities should be submitted on a separate form. All reports submitted to the Illinois EPA's Bureau of Land Permit Section must contain an original, plus a minimum of two copies.

Note: This form is not to be used with permit or closure plan modification requests. The facility's approved permit or closure plan will state whether the document you are submitting is required as a report or a modification request.

Facility Name: _____ Site ID #: _____
Facility Address: _____ Fed ID #: _____

Check the appropriate heading. Only one heading may be checked for each corresponding submittal. Check the appropriate sub-heading, where applicable. Attach the original and all copies behind this form.

- ____ **LPC-160 Forms**
- | | |
|--|--|
| ____ <u>Groundwater</u> | ____ <u>Leachate</u> |
| ____ Quarterly – Indicate one: 1 2 3 4 | ____ Quarterly – Indicate one: 1 2 3 4 |
| ____ Semi-Annual | ____ Semi-Annual |
| ____ Annual | ____ Annual |
| ____ Biennial | ____ Biennial |
- ____ **Groundwater Data (without LPC-160 Forms)**
- | | |
|--|------------------|
| ____ Quarterly – Indicate one: 1 2 3 4 | |
| ____ Annual | ____ Semi-Annual |
| | ____ Biennial |
- ____ **Well Construction Information**
- ____ Well Construction Forms, Boring Logs and/or Abandonment Forms
- ____ Well Survey Data (e.g., Stick-up Elevation Data)
- ____ **Notice of Statistically Significant Evidence of Groundwater Contamination**
(35 Ill. Adm. Code 724.198)
- ____ **Notice of Exceedence of Groundwater Concentration Limit (35 Ill. Adm. Code 724.199(h))**
- ____ **Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater**
(35 Ill. Adm. Code 724.199(i))
- ____ **Gas Monitoring Reports**
- ____ **Other (identify)** _____

Formatting Requirements for the 01 Record of the Electronically Submitted
Groundwater and Leachate Data (the 01 Record portion of the LPC-160 is included
for example purposes)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of _____

RECORD
CODE

L P C S M O 1 A

1

TRANS
CODE

7 8

REPORT DUE DATE

FEDERAL ID NUMBER

SITE INVENTORY NUMBER

9

MONITOR POINT NUMBER

(see Instructions)

19

22

REGION

CO.

DATE COLLECTED

23

M

/

D

/

Y

28

FACILITY NAME

FOR IEPA USE ONLY

LAB

29

DATE RECEIVED

/

/

BACKGROUND SAMPLE (X)

54

TIME COLLECTED

(24 Hr. Clock)

55

11

:

M

58

UNABLE TO COLLECT SAMPLE

(see Instructions)

59

MONITOR POINT SAMPLED BY

(see Instructions)

60

OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X)

61

ORGANICS (X)

62

SAMPLE APPEARANCE

63

102

COLLECTOR COMMENTS

103

142

LAB COMMENTS

150

199

II 532 I213

LPC 160 I2/2011

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 ½, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

All analytical procedures must be performed in accordance with the methods contained in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," SW-846, 3rd Edition, September 1986 or equivalent methods approved by the Agency. Proper sample chain of custody control and quality assurance/quality control procedures must be maintained in accordance with the facility sampling and analysis plan.

*Only Key punch with Data in Column 35 or Columns 38-47

KEY:

<u>Spaces Numbered</u>	<u>Description</u>	<u>Format</u>
Spaces 1-7	Record Code	LPCSM01
Space 8	Trans Code	A
Spaces 9-18	Site ID	0000000000
Spaces 19-22	Mon Pt ID	G000
Spaces 23-28	Date Collected	000000
Space 29	Lab	
Spaces 30-35	Filler	
Spaces 36-41	Report Due Date	000000
Spaces 42-47	Date Received	000000
Spaces 48-53	Filler 2	
Space 54	Background Sample	
Spaces 55-58	Time Collected	0000
Space 59	Unable to Collect Sample	
Space 60	Monitoring Point Sampled By	
Space 61	Field Filtered – Inorganic	
Space 62	Field Filtered – Organic	
Spaces 63-102	Sample Appearance	
Spaces 103-142	Collector Comments	
Spaces 143-149	Filler 3	
Spaces 150-159	Lab Comments	

Formatting Requirements for the 02 Record of the Electronically Submitted Groundwater and Leachate Data (the 02 Record portion of the LPC-160 is included for example purposes)

RECORD CODE

L	P	C	S	M	0	2
					7	

 TRANS CODE

A
8

 (COLUMNS 9-29 FROM ABOVE)

FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	Remarks See Inst.	Replicate	< or >	Value
Q	TEMP OF WATER (unfiltered ° F)	0 0 0 1 1 30 34	35	36	37	38 47
Q	SPEC COND (unfiltered umhos)	0 0 0 9 4				
Q	pH (unfiltered units)	0 0 4 0 0				
Q	ELEV OF GW SURF (ft ref MSL)	7 1 9 9 3				
Q	DEPTH OF WATER (ft below LS)	7 2 0 1 9				
A	BTM WELL ELEV (ft ref MSL)	7 2 0 2 0				
Q	DEPTH TO WATER FR MEA PT (ft)	7 2 1 0 9				

IL 532 1213
LPC 160 12/2011

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 ½, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

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***Only Key punch with Data in Column 35 or Columns 38-47**

KEY:

<u>Spaces Numbered</u>	<u>Description</u>	<u>Format</u>
Spaces 1-7	Record Code	LPCSM02
Space 8	Trans Code	A
Spaces 9-18	Site ID	0000000000
Spaces 19-22	Mon Pt ID	
Spaces 23-28	Date Collected	
Space 29	Lab	
Spaces 30-34	STORET Number	
Space 35	Remarks	
Space 36	Replicate	
Space 37	< or >	
Space 38-47	Value	

ATTACHMENT H

APPENDIX VIII CONSTITUENTS SUSPECTED TO BE PRESENT IN
REFINERY WASTES

ILD005476882

ILLINOIS EPA SITE NO. 0338080002

APPENDIX D
TARGET DETECTION LIMITS IN WATER FOR CONSTITUENTS OF
PETROLEUM REFINING WASTES

Table D-1 Constituents of Petroleum Refining Wastes

		<u>Target Detection Limits in Water</u>	
		Gansecki 1986+ (µg/l)	Commercial Laboratory* (µg/l)
1.	Metals		
	Antimony		
	Arsenic		
	Barium		
	Beryllium		
	Cadmium		
	Chromium		
	Cobalt		
	Lead		
	Mercury		
	Nickel		
	Selenium		
	Vanadium		
2.	Volatiles		
	Benzene	10	5
	Carbon disulfide	10	5
	Chlorobenzene	10	5
	Chloroform	10	5
	1,2-Dichloroethane	10	5
	1,4-Dioxane	50	100
	Ethyl benzene		5
	Ethylene dibromide		
	Methyl ethyl ketone	10	10
	Styrene		5
	Toluene	10	5
	Xylene		5-10
3.	Semivolatile Base/Neutral Extractable Compounds		
	Anthracene		5
	Benzo(a)anthracene	50	5

3.	Benzo(b)fluoranthene	50	
	Semivolatile Base/Neutral Extractable Compounds (cont.)		
	Benzo(k)fluoranthene		5
	Benzo(a)pyrene	50	5
	Bis(2-ethylhexyl) phthalate	10	
	Butyl benzyl phthalate	10	
	Chrysene	10	5
	Dibenz(a,h)acridine	300	5
	Dibenz(a,h)anthracene	50	5
	Dichlorobenzenes	10	5
	Diethyl phthalate	10	20
	7,12-Dimethylbenz(a)anthracene	50	
	Dimethyl phthalate	10	20
	Di(n)butyl phthalate		5
	Di(n)octyl phthalate	10	
	Fluoranthene	10	
	Indene		5
	Methyl chrysene		
	1-Methyl naphthalene		5
	Naphthalene	10	
	Phenanthrene		5
	Pyrene		5
	Pyridine	500	5
	Quinoline		10
4.	Semivolatile Acid-Extractable Compounds		
	Benzenethiol		10
	Cresols	10	5
	2,4-Dimethylphenol	10	5
	2,4-Dinitrophenol	20	50
	4-Nitrophenol	50	50
	Phenol	25	5

*Data from memorandum from John H. Skinner, Director of Office of Solid Waste, U.S. EPA, December 1987.

+Gansecki 1986.

Source: "Permit Guidance Manual on Hazardous Waste Land Treatment Demonstrations", July 1986

ATTACHMENT I
AVERAGED REPLICATE TEST METHOD
ILD005476882
ILLINOIS EPA SITE NO. 0338080002

ATTACHMENT I

Averaged Replicate t-Test

The following statistical procedures must be followed as referenced in Section V (Detection Monitoring).

- 1) Average the replicate indicator Values for each sampling event using the arithmetic mean (X) as follows:

$$X_r = \frac{X_1 + X_2 \dots + X_n}{n}$$

X = each replicate Value
n = the number of replicates
X_r = averaged replicate Value

- 2) Calculate the background mean (X_b) for each indicator parameter, using the averaged replicate Values (X_r) from each background sampling event determined in paragraph 1 above as follows:

$$X_b = \frac{X_{r1} + X_{r2} \dots X_{rN}}{N}$$

X_r = each averaged replicate Value
N = the number of average replicate Values (which is equal to the number of back ground sampling events)

X_b = background mean

- 3) Calculate the background variance (S_{2b}) of the averaged replicate Values (X_r) determined in paragraph 1 using:

$$S_{2b} = \frac{(X_{r1} - X_b)^2 + (X_{r2} - X_b)^2 \dots + (X_{rN} - X_b)^2}{N-1}$$

- 4) Replicate measurements will not be required for each constituent monitored after background Values have been established. For the purposes of the following procedure let X_b=observed concentration of the parameter being evaluated.

- 5) Calculate the t-statistic (t^*) as follows:

$$t^* = \frac{X_m - X_b}{S_b (1 + 1/M_b)^{1/2}}$$

S_b = the standard deviation or $(S_b^2)^{1/2}$

M_b = the number of background sampling events (e.g. for four quarters of background sampling, M_b would equal four. If two background wells are utilized M_b would equal eight).

- 6) Determine the comparison t Value (t_c) from table 1 using:

- a) 0.05 level of significance
- b) $M_b - 1$ as the degrees of freedom
- c) Values from the one-tailed column

- 7) If t^* is $> t_c$ then the permittee must conclude that a statistically significant increase has occurred.

Table 1

Standard T-Tables 0.05 Level of Significance

Degrees of freedom	t-Values (one-tail)	t-Values (two tail)
1	6.314	12.706
2	2.920	4.303
3	2.353	3.182
4	2.132	2.776
5	2.015	2.571
6	1.943	2.447
7	1.895	2.365
8	1.860	2.306
9	1.833	2.262
10	1.812	2.228
11	1.796	2.201
12	1.782	2.179
13	1.771	2.160
14	1.761	2.145
15	1.753	2.131
16	1.746	2.120
17	1.740	2.110
18	1.734	2.101
19	1.729	2.093
20	1.725	2.086
21	1.721	2.080
22	1.717	2.074
23	1.714	2.069
24	1.711	2.064
25	1.708	2.060
30	1.697	2.042
40	1.684	2.021

Adopted from Table III of "Statistical Tables for Biological Agricultural and Medical Research" (1947, R.A. Fisher and F. Yates).

A METHODOLOGY FOR CALCULATING THE MEAN AND VARIANCE
OF THE REPLICATE MEASUREMENTS WHEN SOME OF THE REPLICATE
MEASUREMENTS ARE LESS THAN A LIMIT OF DETECTION

The mean and variance of the Values greater than or equal to the limit of detection must be calculated using the methodology described on page F.1.

BACKGROUND

Estimate $T_{b,ij}$ as follows:

$$T_{b,ij} = s_{b,ij}^2 / (X_{b,ij} - DL_{b,ij})^2$$

Where: $X_{b,ij}$ = Mean of the measurements above or equal to the limit of detection from the i th background well sampled on the j th sampling period. This mean is computed as follows:

$$X_{b,ij} = \frac{\sum_{k=1}^{p'b} X'_{b,ijk}}{p'b}$$

Where: $X'_{b,ijk}$ = Measurements above or equal to the limit of detection

$p'b$ = Number of measurements above or equal to the limit of detection

$s_{b,ij}^2$ = Variance of the measurements above the limit of detection from the i th background well sampled on the j th sampling period. This variance is computed as follows:

$$s_{b,ij}^2 = \frac{\sum_{k=1}^{p'b} (X'_{b,ijk} - X_{b,ij})^2}{(p'b - 1)}$$

$DL_{b,ij}$ = Detection limit for measurements from the i th background well sampled on the j th sampling period.

Obtain Values for $h_{b,ij}$ and $\lambda_{b,ij}$ as follows:

$h_{b,ij}$ = Proportion of the replicate measurements below the limit of detection at well i on sampling period j .

$\lambda_{b,ij}$ = A parameter estimate obtained from entering Table 5 with $T_{b,ij}$ and $h_{b,ij}$. NOTE: If the calculated Value of h is between two Values shown in the table, the Permittee shall determine the appropriate Value of λ using linear interpolation.

A METHODOLOGY FOR CALCULATING THE MEAN AND VARIANCE
OF THE REPLICATE MEASUREMENTS WHEN SOME OF THE REPLICATE
MEASUREMENTS ARE LESS THAN A LIMIT OF DETECTION

Replicate mean and variance estimates considering the LT detection limit Values:

$$X_{b,ij} = \bar{X}_{b,ij} - \lambda_{b,ij} (\bar{X}_{b,ij} - DL_{b,ij})$$

$$s^2_{b,ij} = s^2_{\bar{b,ij}} + \lambda_{b,ij} (\bar{X}_{b,ij} - DL_{b,ij})^2$$

TABLE 5
VALUES OF λ FOR ESTIMATING THE MEAN AND VARIANCE
OF A NORMAL DISTRIBUTION WHEN LESS THAN DETECTION
LIMIT VALUES ARE PRESENT

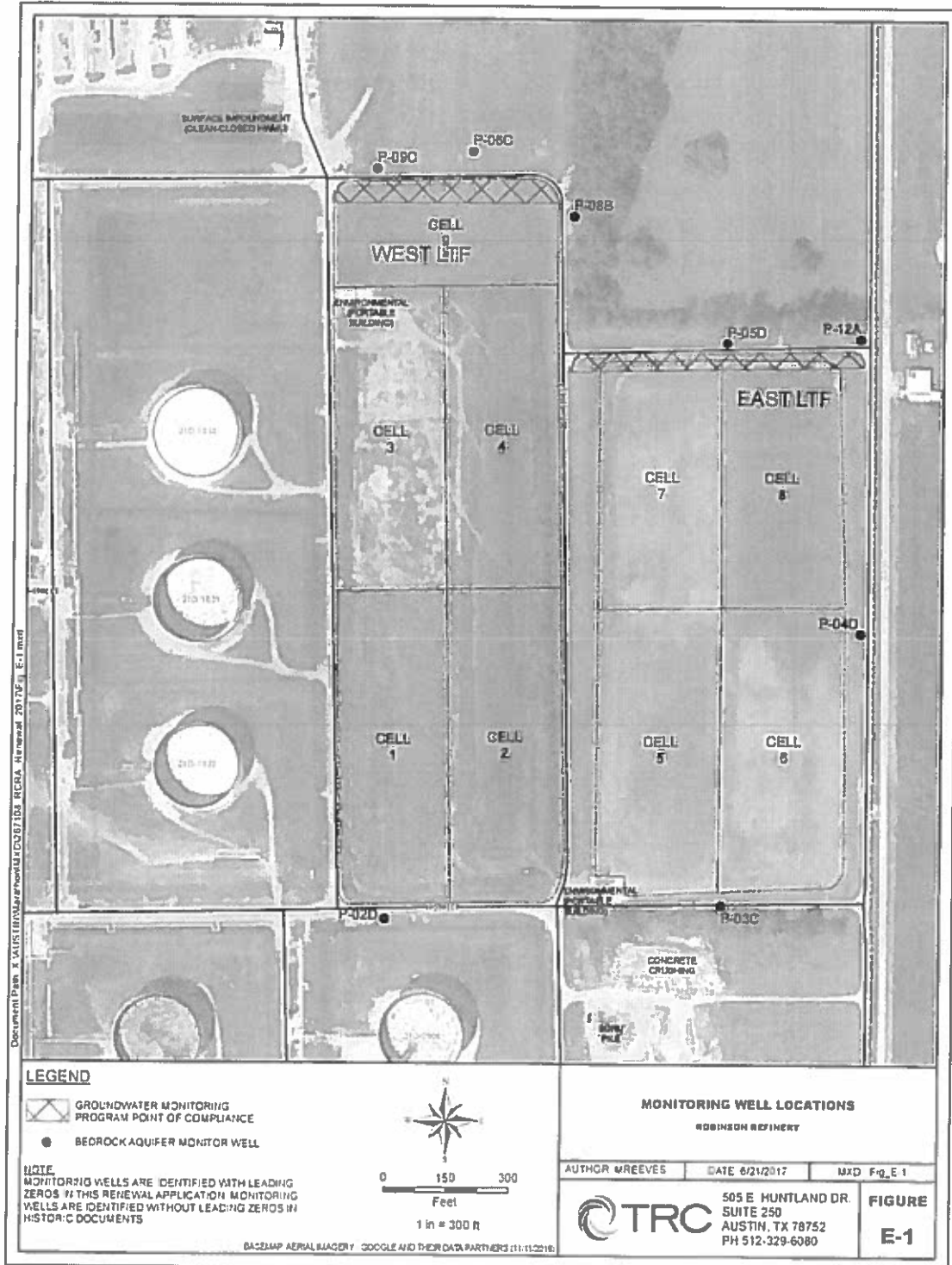
T	h					
	.01	.10	.20	.25	.30	.40
.00	.010100	.11020	.24268	.31862	.4021	.5961
.05	.010551	.11431	.25033	.32793	.4130	.6101
.10	.010950	.11804	.25741	.33662	.4233	.6234
.15	.011310	.12148	.26405	.34480	.4330	.6361
.20	.011642	.12469	.27031	.35255	.4422	.6483
.25	.011952	.12772	.27626	.35993	.4510	.6600
.30	.012243	.13059	.28193	.36700	.4595	.6713
.35	.012520	.13333	.28737	.37379	.4676	.6921
.40	.012784	.13595	.29260	.38033	.4755	.6927
.45	.013036	.13847	.29765	.38665	.4831	.7029
.50	.013279	.14090	.30253	.39276	.4904	.7129
.55	.013513	.14325	.30725	.39870	.4978	.7225
.60	.013739	.14552	.31184	.40447	.5045	.7320
.65	.013958	.14773	.31630	.41008	.5114	.7412
.70	.014171	.14987	.32065	.41555	.5180	.7502
.75	.014378	.15196	.32489	.42090	.5245	.7590
.80	.014579	.15400	.32903	.42612	.5308	.7676
.85	.014775	.15599	.33307	.43122	.5370	.7761
.90	.014967	.15793	.33703	.43622	.5430	.7844
.95	.015154	.15983	.34091	.44112	.5490	.7925
1.00	.015338	.16170	.34471	.44592	.5548	.8005

TABLE 5 (Continued)
VALUES OF λ FOR ESTIMATING THE MEAN AND VARIANCE
OF A NORMAL DISTRIBUTION WHEN LESS THAN DETECTION
LIMIT VALUES ARE PRESENT

T	h				
	.50	.60	.70	.80	.90
.00	.8368	1.145	1.561	2.176	3.283
.05	.8540	1.166	1.585	2.203	3.314
.10	.8703	1.185	1.608	2.229	3.345
.15	.8860	1.204	1.630	2.255	3.376
.20	.9012	1.222	1.651	2.280	3.405
.25	.9158	1.240	1.672	2.305	3.435
.30	.9300	1.257	1.693	2.329	3.464
.35	.9437	1.274	1.713	2.353	3.492
.40	.9570	1.290	1.732	2.376	3.520
.45	.9700	1.306	1.751	2.399	3.547
.50	.9826	1.321	1.770	2.421	3.575
.55	.9950	1.337	1.788	2.443	3.601
.60	1.007	1.351	1.806	2.475	3.628
.65	1.019	1.366	1.825	2.486	3.654
.70	1.030	1.380	1.841	2.507	3.679
.75	1.042	1.394	1.858	2.528	3.705
.80	1.053	1.408	1.875	2.548	3.730
.85	1.064	1.422	1.892	2.568	3.754
.90	1.074	1.435	1.908	2.588	3.779
1.00	1.095	1.461	1.940	2.626	3.827

From: A Clifford Cohen (1961), Technometrics 3:538

ATTACHMENT J
GROUNDWATER MONITORING WELL LOCATIONS
ILD005476882
ILLINOIS EPA SITE NO. 0338080002



ATTACHMENT K

APPROVED PERMIT APPLICATION IDENTIFICATION

ILD005476882

ILLINOIS EPA SITE NO. 0338080002

LIST OF PLANS AND DOCUMENTS CONTAINED IN THE APPROVED PERMIT APPLICATION

Pursuant to Illinois solid and hazardous management requirements, the Permittee prepared the following formal plans and documents covering various facets of the design, operation and monitoring of its hazardous waste management units. The issuance of this RCRA permit (B-56R2) approved the plans and documents contained in the renewal RCRA Permit Application dated June 26, 2017 including subsequent amendments dated July 26, 2017, August 31, 2017 and November 6, 2017.

Each plan or document regarding all aspects of the RCRA permit and its location within the approved renewal RCRA Permit Application are as follows:

<u>Plan or Document</u>	<u>Location in the Approved Permit Application</u>
1. Waste Analysis Plan	Section C.2; Appendix C.3
2. Inspection Plan	Section F.2, Appendices F.2.1 and F.2.2; Tables F-1 – F-4
3. Contingency Plan	Section G.2; Appendix G.2
4. Closure and Contingent Closure Plans	Appendices I-1, I-2; Section I
5. Training Program	Section H.1
6. Design and Operating Plans, Specifications and Procedures for Container Storage	Section D1
7. Design and Operating Plans, Specifications and Procedures for Land Treatment Facility	Section D.7
8. Remedy Selection and CAMU Decision Criteria	Section D.7.2
9. Design and Operating Plans, Specifications and Procedures for the West LTF CAMU	Section D.7.2

<u>Plan or Document</u>	<u>Location in the Approved Permit Application</u>
10. Post-Closure Plan for the West LTF CAMU	Appendix I.2
11. Detection Monitoring System for the West LTF CAMU	Appendix D.7-1
12. Post-Closure Plan for East Land Treatment Facility	Appendix I.2
14. Detection Monitoring System	Section E.6
15. Quality Assurance Project Plan	Appendix C.3

